The Role of Grandmothers and other household actors in maternal and child health

A qualitative community study:
Navoi, Uzbekistan

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It is hoped that the results of this study will be useful not only in Navoi but also in other parts of country to develop community healthy programs that build on the rich cultural heritage of Uzbekistan.

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Executive Summary

Since late 1999, Project Hope has been working with health and local authorities in Navoi Oblast in eastern Uzbekistan to help strengthen maternal and child health services. One component of the project focuses on strengthening maternal and child health (MCH) services in formal health facilities, while the second, community component aims to strengthen household strategies and practices related both to promoting the health of women and children and to appropriately managing childhood illnesses. In order to develop the second component, a community study was undertaken as a basis for identifying strategies that would be more likely to have an impact on household MCH practices.

The goals of the community study were:

1) to understand the roles and influence of family and community members, especially GMs, on maternal and child health practices

2) to understand the knowledge, advice and practices of household members, especially GMs, related to: breastfeeding; care of the sick child; women's nutrition during pregnancy and breastfeeding; and nutrition of the young child.

The methodology used in the study was quite different from that typically used in such MCH studies. Most community studies on MCH *topics* focus on understanding individual behaviors*, specifically the* behaviors of women-of reproductive age *(WRA)*. In this study a holistic, or systems framework was adopted, and the aim was to identify and understand: the different categories of actors involved at the household and family levels in MCH; their respective roles both in promoting the health of women and children and in dealing with illnesses; and the influences and decision-making within the household related to different aspects of MCH.

Given the objectives of the study, a qualitative methodology was adopted in order to collect in depth information on household and community processes related to promoting MCH. For this purpose focus group interviews were conducted with a total of 244 interviewees including: grandmothers; grandfathers; women with young children; men with young children; several traditional healers; and few *Mahalla* officials. The team of interviewers consisted of the 5 Project HOPE field staff and two of their close collaborators from the MOH.

Key findings of the study:

All families have their own strategies both for promoting the health of their women and children and for dealing with sicknesses when they are ill. In all cases, these strategies are based in part on modern health promotion and

treatment ideas and in part on traditional Uzbek concepts of how to promote health and treat illnesses. Household strategies and practices related to maternal and child health (MCH) are primarily determined by senior women, or grandmothers, also by younger women themselves, and to a lesser extent by fathers and grandfathers. All of these various household actors have an influence on the health/nutrition of women and children both when they are well and when they are sick. Although younger women have periodic contact with health providers, on a day-to-day basis, most of the advice and supervision they receive comes from GMs, and secondly, from other household members.

Within the family, GMs play a multi-faceted role related to the day-to-day functioning of the household and family members view them as "the general managers in the family." Their role includes: management of human resources; financial resources; food resources; and all health-related situations. Their expertise in all of these critical aspects of family life underpins the respect accorded to them and their wide-ranging influence within the family context. Their influence in MCH matters is only one dimension of the broader scope of their authority at the household level.

One of the core values in Uzbek society is respect for the experience, knowledge and advice of elders. The importance of "respecting the advice of the elders" applies to MCH promotion insofar as the younger generation is expected to acknowledge the experience of senior women in this field. Women and their husbands are expected to respect the experience and advice of their mothers-in-law regarding all MCH matters.

In the extended family setting, the MCH knowledge and practices acquired by WRA are strongly influenced by the teaching and expectations of the experienced and authoritative GMs. In this context, they have a relatively limited degree of autonomy to adopt MCH practices that are not approved of by these senior women.

Families in rural Navoi have access to three sources of health care provided in the modern, traditional and family sectors. Modern health facilities are readily accessible and frequently used. In addition, traditional health providers, or "traditional healers," operate in virtually all communities. However, in all cases, efforts to promote health and to manage illnesses take place primarily in the "family sector" wherein the senior women provide expertise and leadership.

GMs give advice to younger women when they are pregnant and when they are breastfeeding. GMs both advise and directly intervene in the care for newborns and for young children. When children are well they advise on what should be done to keep them healthy and when they are sick they diagnose and propose the appropriate treatment both within the household and outside. Many of the practices proposed and used by the GMs are beneficial to women and children.

However, in light of current MOH priorities for MCH, some of their practices related both to women and children's health are not optimal.

Particularly related to nutrition, their knowledge of the nutritional needs of women and children and the nutritional values of local foods and of is somewhat limited.

In all rural Navoi communities, GMs have frequent contact with one another and GM networks constitute indigenous communication and support mechanisms that contribute to family and community well being. Both the GM networks and GM leaders are already actively involved in MCH promotion. And all GMs expressed their interest in learning more about the "new ideas about MCH." Project Hope should explore possibilities of developing GM-focused activities working through the GM networks and leadership. Such activities should be developed in collaboration with the community women's organization in each *mahalla (municipality)* to establish local ownership and increase the prospects that such activities will be sustained over time.

Given the status and experience of GMs in Uzbek communities, any activities to strengthen their current knowledge and practices should be carefully chosen in order to encourage them to participate. Teaching methods used with them should be based on adult education principles of respect and dialogue, rather than on traditional, one-way "school teaching" in which people are told what to do. In Uzbekistan, stories are a popular traditional form of communication and teaching, and it is suggested that this technique be tried with GM groups in MCH-promotion activities. Project HOPE staff and their MOH partners could develop stories addressing priority MCH project topics and GM leaders could be taught how to use these stories to stimulate discussion in GM networks.

I. Introduction:

A. Child survival project in Navoí

Since late 1999, Project Hope has been working with health and local authorities in two rayons of the Navoi Oblast in the eastern part of Uzbekistan to help strengthen maternal and child health services. The child survival and maternal care services project aims to improve the services and care for women and young children both in health facilities and at the household level. Based on the health situation and needs at the outset of the project, priority technical areas addressed in the project are maternal and newborn care, breastfeeding, child spacing and integrated management of childhood illnesses (IMCI).

B. Community component of the project

There are two main components in the project, one focusing on strengthening maternal and child health (MCH) services in formal health facilities, and second, on strengthening household strategies and practices related both to promoting the health of women and project activities focused on working with the formal health services to improve the knowledge and skills of health providers related to the priority MCH issues.

The community component was developed somewhat later. In development of the community component of the project the present study was planned as a basis for deciding what activities and strategies should be adopted in order to have the greatest impact on household MCH practices. The decision to conduct the study was based on the project staff's belief that in Uzbek society mothers-in-law/grandmothers (GM) play an active role at the family level educating, advising and supervising both their own children (especially their sons and their wives who live with them) and their grandchildren. [1] In Uzbekistan no previous studies had specifically examined the role and influence of grandmothers on family health and well being.

In June 2003 Project HOPE staff, along with several of their MOH colleagues, collaborated with an external consultant to carry out a community study on the role of grandmothers and other household actors in MCH.

[1] Here the term *grandmother* (GM) is used to denote older, experienced women in the family. This includes both maternal and paternal GMs, or mothers-in-law. In addition, in many cases there are older "aunties" in the family who may or may not have children and/or grandchildren but who, nevertheless play an advisory role in the extended family and in the community.

II. Study methodology

A. Goals of the study

The goals of the community study were:

3) to understand the roles and influence of family and community members, especially GMs, on maternal and child health practices

4) to understand the knowledge, advice and practices of household members, especially GMs, related to: breastfeeding; care of the sick child; women's nutrition during pregnancy and breastfeeding; and nutrition of the young child.

B. Conceptual framework for the study

The scope and results of any community health study are partly influenced by the conceptual framework adopted by those who design the study. There are many ways of going about conducting a community study on MCH actors and practices. In this case, as compared with the conventional approach, the methodology used in this study was quite different from that used in many other studies.

Conventional approach: focus on individual behavior of women of reproductive age

Most community studies on MCH are based on concepts from psychology and focus on understanding *individual behaviors*, in most cases the behaviors of women-of reproductive age. In addition, most studies carried out in the context of community health programs primarily aim to identify the inappropriate behaviors, or MCH practices, and to analyze the constraints to adoption of the recommended practices promoted in the program.

Alternative approach: systems approach to family and community actors and strategies

An alternative framework for studying community MCH practices, is based on concepts from anthropology and from social work. A key concept both from anthropology and from social work, which can be applied to MCH, is a *systems approach* in which both families and the communities, of which they are a part, are viewed in a holistic way. From a systems perspective the aim is to understand: the different categories of family and community actors involved in MCH at both family and community levels: the interactions between them around MCH issues; the decision-making and influences within the household on different aspects of MCH. An important aspect of a systems analysis of roles and power relationships within the family.

A second dimension to the alternative framework, from community development, is that the focus is less on problems and constraints related to priority MCH practices, and more on family and community "assets," i.e. human resources, or actors, and strategies that families and communities already use to promote the MCH of their members.

A third dimension, related to the other two and also from anthropology, includes two concepts, that of the *health-seeking process* and of the *three health sectors.* The *health-seeking-process* refers to the steps that are followed when a person falls ill, including the various categories of actors that are involved, who interact with each other in deciding what the problem is and what should be done about it, initially and over time. The last concept is that of the *three health sectors.* This idea is that the *health system* in a community is composed of three sectors: the biomedical sector (consisting of the "modern" health services and specialists); the traditional sector (consisting of the "traditional" health services and specialists); and the family sector (consisting of lay family health advisors and care). In order to understand how health problems or illness episodes are dealt with by family members these two concepts are useful in analyzing the roles of different actors both within and outside the household in the sequence of steps that they follow, decisions and actions that they take during the entire course of the illness.

In this study, based on this alternative conceptual framework, the emphasis was on analysis of: the roles played by various family and community actors related to MCH; the influence of family and community members on women of reproductive age (WRA); and household decision-making related both to health promotion and illness management. The practices of WRA were examined, not in an isolated way, but rather within the broader household and family context of decision-making and of the multiple influences on them.

C. Qualitative research methods

In public health programs in Uzbekistan and elsewhere in the world, the most frequently used methods are quantitative. Historically, data collection activities in public health have been based on methods from epidemiology that are essentially quantitative. The primary purpose of quantitative methods is to measure certain factors, or phenomena, of interest.

In any study, the choice of data collection methods depends on the aim of the research. Given the goal, objectives and conceptual framework for this study, it was decided that it would be more appropriate to use qualitative methods. There were several reasons for this decision. First, the goals of the study goals clearly require the collection of in depth information, rather than succinct numerical analyses. Second, in order to discover the initially unknown "subjective" points of view of community members on different facets of MCH, qualitative methods are

more appropriate than quantitative ones, in which researchers measure certain factors that they identify ahead of time. Lastly, given that the study focused on the analysis of household roles and dynamics, it was clear that more flexible qualitative methods would be required to understand such processes.

D. Study topics and objectives

Based on the goal of the study, the conceptual framework and the MCH priorities of the child survival project, the following key topics were defined for the study.

1. Roles and influence on MCH practices in the family and community
2. The role and influence of grandmothers in the family and community
3. Knowledge, advice and practices related to breastfeeding
4. Knowledge, advice and practices related to the care of the sick child
5. Knowledge, advice and practices related to diarrhea
6. Knowledge, advice and practices related to women's nutrition and care during pregnancy
7. Nutrition of the young child

For each of these topics a series of specific objectives were defined which represent the information to be collected related to each of the seven topics. The complete list of specific objectives by study topic is found in Appendix A.

The data collection was organized in two phases. In the first phase, related to the first two topics above, the focus was on analyzing the roles and influence of different categories of actors both within the family and wider community who have a direct or indirect influence on MCH. In the second phase, the focus was on collecting information on the specific technical areas of MCH related to topics two through seven above.

E. Data collection techniques and instruments

Given the aim of the study to collect in depth qualitative data, it was decided to conduct semi-structured focus group interviews. For the past fifteen years this qualitative and rapid data collection technique has increasingly been used in community health programs to investigate different health topics (Aubel, 1992). It involves identifying between eight and twelve individuals who are quite similar in terms of their gender, age and experience relative to the topic/s to be studied. In this case, four types of homogeneous groups were constituted made up of: women with young children, men with young children, grandmothers and grandfathers. The homogeneity of the group is important so that participants feel comfortable to share their experiences and perspectives. For example, if younger and older women were together in the same interview group it is likely that the younger women would not be at ease to share their ideas and feelings as spontaneously as if they were in a group made up only of women who are similar to them in age.

Each interview was facilitated by one of the members of the Project HOPE-MOH study team who used an interview guide to direct the discussion. For each of the four categories of interviewees a specific interview guide was developed. An *interview guide* differs considerably from a *questionnaire* in terms of its content and the way it is used. The *interview guide* contains a series of open-ended questions that the facilitator poses to the group. Based on interviewees' responses, the group facilitator formulates additional probing questions in order to collect detailed information on the topic addressed in the initial question. This type of in depth interviewing requires considerable skill on the part of the interviewers. Study team members were trained ahead of time and assisted by the external consultant during all of the interviews.

F. Data collection sites and interviewees

Interviews were conducted in the two rayons (similar to districts) in Navoi Oblast where the project is being implemented. Given that Kiziltepa rayon is considerably larger than Karmana rayon, in terms of population, it was decided to conduct interviews in 5 mahallas (villages) in Kiziltepa and in 4 mahallas in Karmana.

The sample of interviewees was selected using a *convenience sample.* In each mahalla the women's group organizers were provided with the criteria for choice of focus group members and they in turn identified community members who were interested and willing to participate. The mahalla organizers were asked to choose a quiet and comfortable spot for the groups to meet. In most cases, the focus group interviews were conducted in people's homes and in a few cases they were conducted in the mahalla offices or gardens.

The total number of persons interviewed was 224 composed of: 122 grandmothers; 38 women with young children; 30 grandfathers; 13 men with young children; 5 traditional healers; and 8 mahalla officials. (See Table I below).

Table I: Number of Interviewees by category

Category of interviewees	Grandmothers	Women with young children	Grandfathers	Men with young children	Traditional healers	Mahalla officials
Number of interviewees	122	38	30	13	5	8

G. Interviewers

The focus group interviewers, or facilitators, consisted of all 5 field staff members of the Project Hope team in Navoi and two of their colleagues from the MOH who have been involved in project-supported activities. The study team members consisted mostly of doctors and one trained midwife. Many of the team members

are originally from the Navoi area which was a great advantage in terms of their in depth knowledge of the socio-cultural realities of the zone.

H. Data collection and analysis

Data was collected during a two-week period in June 2003. Each day two group interviews were conducted, the first with a group of grandmothers and the second with one of the other categories of interviewees. During each focus group interview extensive notes were taken by two team members. Each day, immediately following completion of the interviews the study team met to color code the notes in relation to the study objectives, and to analyze the information collected. Data analysis was done using the qualitative research technique *content analysis* in which the categories of responses to each question/ objective were identified. The ongoing data analysis allowed team members to identify unclear responses/ideas, as well as missing information, and to probe these areas in subsequent interviews.

During the last two days of the study, the analyses from each of the four categories of interviewees were reviewed. For each study objective the information from the different categories of interviewees was triangulated in order to formulate conclusions regarding the similarities and differences between the responses from the different categories of community members.

III. Results of the study

Part I: Context of Uzbek cultural values and family life

In order to understand the strategies, practices and constraints encountered by Uzbek families related to MCH, the study sought to understand key characteristics of the socio-cultural, economic and environmental contexts that influence Uzbek family life. Many health and development programs promote "technical priorities" without systematically taking into account the cultural and other contextual factors that influence the day-to-day life of women, children and families. This study attempted to understand these key facets of family life in order to determine what program activities can be developed to build on existing family and community strategies that promote the survival and health of women and children.

A. Family life in rural Navoi

In the project and study areas in rural Navoi, the majority of the population is Uzbek, while there are smaller groups of Kazakh and Tajik families/communities. The three ethnic groups have different languages though most people speak Uzbek. Culturally there are many similarities between the three and in terms of family structure and roles. In almost all cases young men and women live with their parents until they marry. When a woman marries she leaves her parents' house and moves into the home of her husband's family taking on two new roles,

that of wife and that of *keleen*, or daughter-in-law. As a *keleen* there are a variety of responsibilities that she is expected to assume under the supervision of her mother-in-law.

When the *keleen* becomes pregnant for the first time, when she delivers and begins caring for her newborn, she is advised and supervised by her mother-in-law. During this formative period the approaches and practices that she adopts, for caring for herself and child, are strongly influenced by the advice she receives from her mother-in-law, and to a lesser extent by advice from her husband. The husband's advice to his new wife is generally based on recommendations from his own mother. The young woman's contact with her own mother and family is relatively limited.

In Navoi, approximately 40% of women work outside the home and most of these women (60%) leave their children with their mothers-in-law, while other women leave them with older daughters or in daycare centers.

B. Core Uzbek cultural values

In the community interviews, especially with grandfathers and grandmothers, their love for Uzbek culture, values and traditions was frequently mentioned. Core Uzbek cultural values identified were related to the importance of: the family; hospitality; generosity; religion/Islam; love for children; and respect for elders. It was stated that during Soviet times many Uzbek religious and cultural traditions were not actively promoted and that since independence in 1991 there is a renewed sense of commitment to promoting these traditions with the younger generation. Within the family it is the grandfather and grandmother who are primarily responsible for transmitting the cultural values and practices from one generation to the next.

C. Respect and learning from the elders

One of the core values in Uzbek society is respect for elders. There are various sayings in Uzbek that refer to the value of elders in the society and to the attitude toward them that younger people are expected to adopt. The following sayings all reflect the importance accorded to elders in Uzbek culture: "If you respect older people God will give you lots of children;" "Saints live in the houses where older people live;" and "It is a rule in Uzbek society that all people should listen to what older people say and advise." This last saying emphasizes how important it is for younger people to learn from the experience and wisdom of their elders.

These traditional Uzbek values teach younger people to value the knowledge and advice of the grandfathers, grandmothers and other senior family members. Many interviewees articulated the importance of these values, however, some also pointed out that in contemporary society some younger people do not show adequate respect for the elders in their family and community. The grandfathers,

in particular, stated that ongoing efforts need to be made to preserve and enforce this value.

The study revealed that in Uzbek society the concept of "respect for the experience and advice of the elders" very much applies to MCH insofar as the experience and wisdom of senior women in the family, i.e. the mothers-in-law, grandmothers, aunties etc., in this domain, is considered as "cultural capital" that should be sought and valued by the younger generations. This sense of appreciation was clearly revealed in the interviews with younger women, grandmothers, grandfathers and young men. They all stated that it is important for women with young children to respect the advice and experience of their mothers-in-law regarding all health-related issues concerning themselves and their children.

In the Uzbek family context it is taught that the expertise of the senior women, or grandmothers, should be respected. However, in past MCH programs there do not appear to have been explicit efforts to develop strategies that acknowledge and show respect for their knowledge and experience in keeping with their status in the family and community. Similarly, past programs have not involved GMs to the same degree as younger women.

D. Environmental context

Navoi is a zone in which there are numerous chemical and mining companies that, according to all four categories of interviewees, emit various "dirty" and "polluting" materials into the air and water. Many interviewees stated that many of the health problems they suffer from are due to the "dirty air we breathe" and to the "dirty water we drink." The validity of these claims was not examined in this study but interviewee responses reflect **their** concern that environmental pollution has a negative effect on people's health. Many people stated that the health situation of women and children has worsened over the past twenty years and that this is due in part to environmental pollution. For example, most interviewees are convinced that environmental pollution directly contributes to the very high levels of anemia in pregnant women.

E. Economic context

Interviewees frequently referred to the declining economic situation in Navoi and specifically related it to the difficulties families encounter obtaining good quality food, especially meat. The economy has considerably weakened in the past ten years and interviewees repeatedly talked about the increased cost of foodstuffs and how that effects the quality of household nutrition. The economic situation does not appear to have significantly affected utilization of MCH and other health services given the strong government support for provision of key services. Part

II: Household roles and decision-making related to MCH

The influence of different categories of family members (grandfathers, grandmothers, husbands and wives) on MCH is very much related to their status and influence within the family. In this part of the study the investigation focused on analyzing the roles of different family members in family life in general, and specifically related to MCH. It also focused on understanding household decision-making related to maternal and child health and well being.

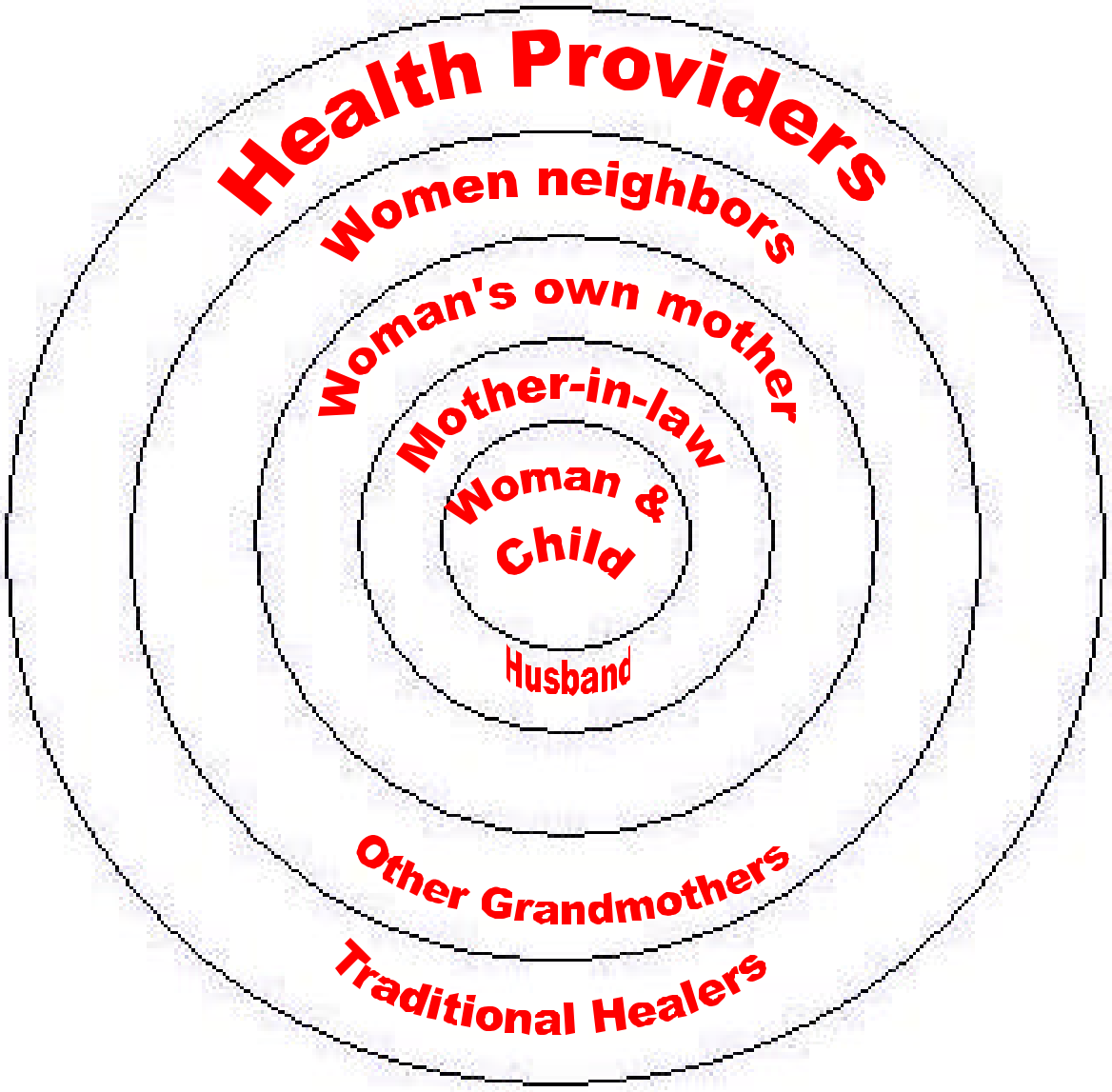
A. Influences on household practices related to MCH

The study clearly showed that household practices related to the health/nutrition of women and children are influenced by various family members, as well as by other key persons outside the family. Within the household, women and children are surrounded by other family members who, on a daily basis, directly or indirectly influence their well-being in one way or another. Household strategies and practices related to MCH are primarily influenced by senior women, or grandmothers, also by younger women, and to a lesser extent by fathers and grandfathers. These various household actors have an influence on the health/nutrition of women and children both when they are well and when they are sick. Women with young children have periodic contact with and are advised by health providers both when they consult with them at the hospital and clinics, and when health workers make home visits. However, on a day-to-day basis, most of the advice and supervision that younger women receive comes from GMs and other household members.

Diagram I. entitled, “Influences on the health-related knowledge and practices of women with young children” illustrates the relative influence of various actors within and outside the household. In the diagram, those who have more contact with and influence on the health-related practices of women and children are closer to them, while those who have less influence are further away. The mothers-in-law and husbands are the most influential and the specialized healers; both “modern” and “traditional” are the less influential. The diagram shows the multiple influences exerted on women with young children and also, how difficult it is for younger women, to adopt practices that go against the ideas of the family and community members who monitor what they do and who give them advice on an ongoing basis. In addition, given that the various family and community members in the “circles of influence” around a woman usually share the same socio-culturally defined *norms* regarding such things as the pregnant woman’s diet, care for newborns and breastfeeding, she usually receives similar advice from various people.

In the diagram formal health providers are in one of the outer circles. This is because although they have contact with women and their children, the frequency of contact is occasional and their degree of influence on young women is relatively weak compared with that of household actors, particularly the GMs.

Diagram I: **Influences on the health-related knowledge and practices of women with young children**



The health-related knowledge and advice of family members is strongly influenced by information received from the modern health sector but also by traditional, culturally-grounded values and practices passed on from earlier generations.

B. The multi-faceted role of grandmothers in the family and community

The study clearly showed that within the family, GMs have a variety of responsibilities that are critical to the day-to-day functioning of the household. The importance of their role is acknowledged by all categories of family members. The study team concluded that "GMs are the general managers in the

family." In addition, their various responsibilities are related to all of the other family members and their respective activities. Diagram II summarizes the roles played by most Uzbek GMs in the rural areas where Project Hope is working.

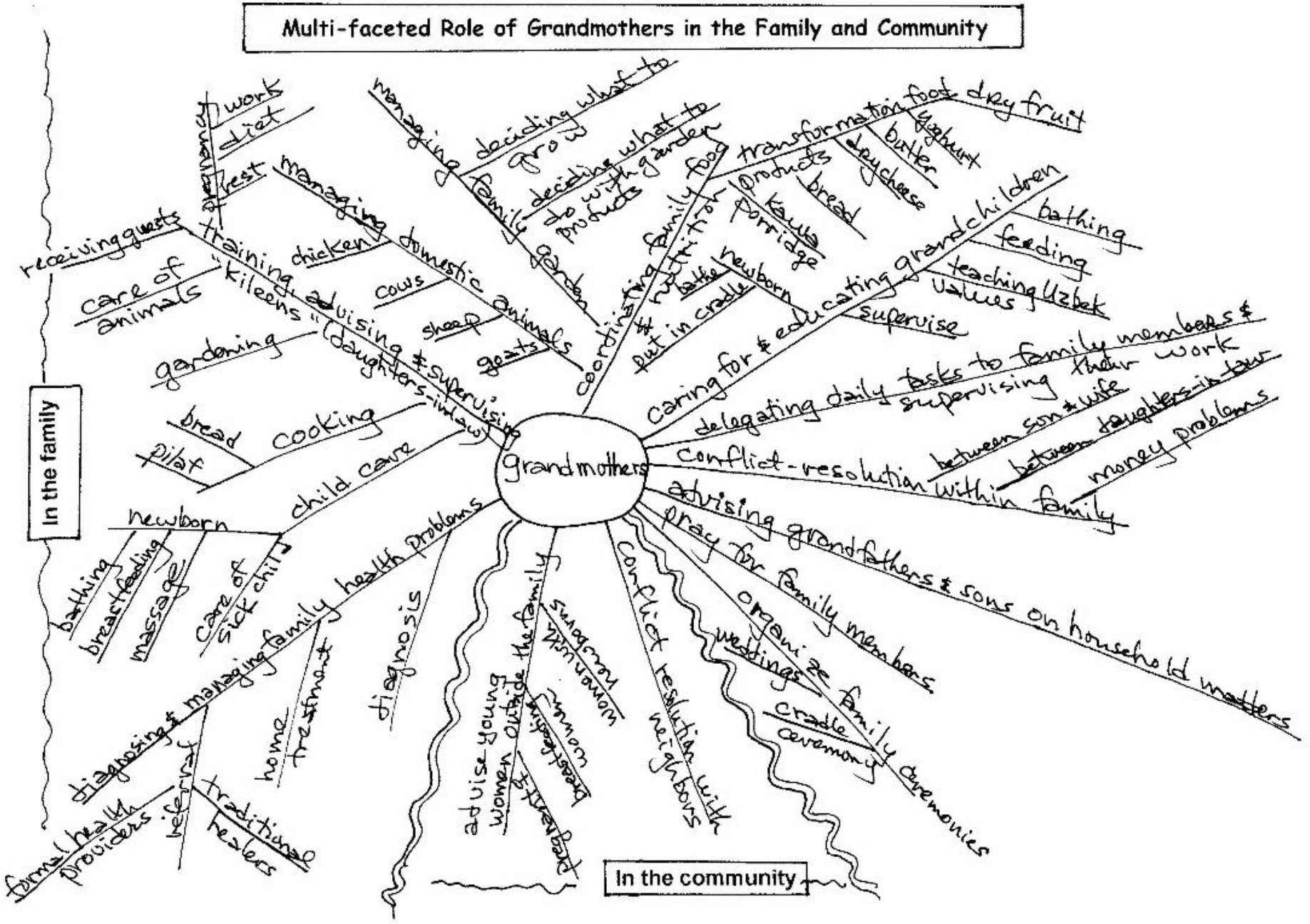
Within the family, the role of the GMs includes: caring for and educating grandchildren; training, advising and supervising their *keleens*/daughters-in-law on all domestic tasks, childcare etc.; advising both the grandfathers and sons/husbands on various household matters; conflict-resolution within the family; delegating daily tasks to different family members; day-to-day management of the family budget; coordinating family food and nutrition including managing the family garden; care of the domestic animals (goals, sheep, chickens); diagnosing and managing family health problems; receiving visitors; organizing family ceremonies; and teaching family members about both Uzbek cultural values/traditions and family traditions. Key roles played by GMs outside the household include; advising young women outside of their own family; and conflict-resolution with neighbors. The GMs' experience and expertise in all of these critical aspects of family life underpins the respect accorded to them and their wide-ranging influence within the family context. Their influence in MCH matters is only one dimension of the broader scope of their authority in the household.

B. The role of paternal and maternal grandmothers

The roles of the paternal and maternal GMs are quite distinct, though complementary, in relation to their daughters, daughters-in-law and children of each (i.e. their grandchildren). In the rural areas where the study was carried out, when a woman marries, in virtually all cases she moves into the house of her husband's family and lives there with him for at least 3 years, often for l0 years and sometimes forever. The length of time depends in part on the size of the family home and the number of other sons with wives and children.

When a daughter-in-law moves into the home of her in-laws, they assume responsibility for her and her children. During the time that she and her children live in her husband's parents' home, her contact with the paternal GM is much closer than with her own mother, the maternal GM. The daughter-in-law is supervised by her mother-in-law, expected to follow her orders and to ask her permission whenever she wants to go out, including when she wants to visit her own mother. If, for example, she is pregnant or her child is sick, she is expected to seek and follow the advice of her mother-in-law, and her own mother is involved in such matters to a much lesser degree.

Similarly, the relationship that grandchildren have with the GMs on the two sides of the family differs considerably. This is reflected in the Uzbek language wherein the paternal GM is called *yakin buvi*, or "close GM" while the maternal GM is referred to *uzok buvi*, or "far away Buvi." Due to the intensity of contact and sense of responsibility assumed by the paternal GM for their sons' children,


Multi-faceted Role of Grandmothers in the Family and Community
In the family
In the community
Grandmothers
receiving guests
care of animals
gardening
bread
pilaf
cooking
training daughters-in-law
advising & supervising "kelins"
managing domestic animals
chicken
cows
sheep
goats
child care
newborn
bathing
breastfeeding
massage
care of sick child
managing family health problems
diagnosing
formal health providers
referral
traditional healers
home treatment
diagnosis
managing family garden
deciding what to grow
deciding what to do with garden products
coordinating family nutrition
family food products
kawla
porridge
bread
transformation food
dry fruit
yoghurt
butter
cheese
caring for & educating grandchildren
bathing
feeding
teaching Uzbek values
supervise
put in cradle
newborn
delegating daily tasks to family members & supervising their work
conflict-resolution within family
between son & wife
between daughters-in-law
money problems
advising grandfathers & sons on household matters
pray for family members
organize family ceremonies
weddings
cradle ceremony
conflict resolution with neighbours
advise young women outside the family
women's health
breastfeeding
pregnancy

the GMs all agree that grandchildren feel much closer to their *yakin buvi* than to their *uzok buvi* who they see much less frequently and with whom the relationship is weaker. While GMs insist that they have the same degree of love for their daugthers' children as their do for their son's children, it appears that the "far away GMs" often feel quite jealous of the "close GMs." The difference in how the two types of GMs are perceived by the grandchildren is reflected in the Uzbek proverb that says, "The paternal GM is like silk and the maternal GM is like bran." Silk is produced in some parts of the country and is considered to be a very special item. Bran, on the other hand, is a material that is not considered to be very useful. Equating the maternal GM with "bran" suggests that she is perceived to be considerably less useful than her paternal counterpart.

D. The role and influence of grandfathers in the family and in MCH

According to both the grandfathers (GF) themselves and to other family members, in Uzbek tradition, the GF is always the head of the household and he has overall responsibility for promoting the well-being of all family members. According to one of the Mulas interviewed, "God gave the grandfathers this responsibility." The GF's role is complementary to that of the GM and has two main dimensions related to "educating family members" and to "supervising the family."

Their role as "educator" includes both providing general moral guidance to family members and advising them on practical life issues. Other family members seek and respect their advice given that they have lived a long time and have a lot of knowledge and experience dealing with life's problems. An important dimension of this role is teaching the younger generation about Uzbek traditions and cultural values. Many GFs enjoy telling stories and poems that help younger family members to understand these traditions and values. The GFs interviewed said that during Soviet times Uzbek religious and cultural traditions were not actively promoted and since independence in 1993 they have a renewed sense of commitment to promoting these traditions with the younger generation.

While the GF is referred to as the "decision-maker" in the family, the GM is referred to as both the "adviser" and "manager." During the day, the GFs spend most of their time away from home and, therefore, they do not monitor the multiple household activities on an on-going basis, as do the GMs. Regarding all family problems and decisions to be made, the GM informs and advises the GF on the situation, he makes a decision regarding what should be done and, in turn, he expects the GM to "manage," or implement the solution. He also expects other family members to comply with the GM's instructions. One GF said, "For example, if there are problems between my son and his wife, my wife will explain to me exactly what the problem is, we will discuss the situation and I will ask her what should be done to ensure that they do not divorce. Then I will decide what should be done and ask her to implement the strategy we have discussed by talking with both my son and his wife."

Specific responsibilities of the GFs are: to choose the name for the first child of each of their sons; to be involved in choosing a spouse for each of their children; to supervise work in the family fields; to do the macro level planning for the family budget. According to the GFs, management of the family budget on a weekly and daily basis is handled by the GMs.

In household context, GFs are usually much closer to the other male family members and their activities than to the women and their activities. This includes health matters which, according to the GFs, are primarily the responsibility of women. The GFs state, for example, that if a child is sick, if the problem is not too serious it is usually taken care of by the GM and daughter-in-law and the GF is often not even informed about it. If, however, it is a serious problem, the GM informs the GF and asks for his moral and sometimes financial support. According to the GFs, when a child is sick they often provide support, of one form or another, generally based on the advice they receive from their wives.

E. The role and influence of husbands in the family and in MCH

The main roles of men/husbands in the family are: to work hard in order to provide the family with money and food products; to participate in educating their children; and to provide financial and logistical support when a family member is sick. Similar to the grandfathers, men with young children stated that they spend most of their time away from home and have relatively limited knowledge about health-related issues such as pregnancy, newborn and child health and nutrition, They all stated that they depend on their mothers to inform and advise them on all issues related to the well-being of women and children including both health promotion and illness management matters. For example, if a man's wife is pregnant, he takes for granted that his mother will assume responsibility for her day-to-day care and supervision. Similarly, if a child is sick, he looks to his mother for advice on what to do. In such cases, as in many other cultures it is said that, "It is the father who decides if it is necessary to take a sick child to the doctor," however, his "decision" is in almost all cases based on the advice received from other family members, and primarily from his mother.

G. The role of grandmothers in MCH

All categories of family members state that GMs are the key actors both in promoting MCH and in managing health problems of both women and children in the family. Their knowledge and experience in MCH matters is recognized by all categories of interviewees to be greater than that of other family members and they are viewed as "resource persons" not only for their own families but also for neighboring families. Their function as "resource persons" is based first, on the role assigned to them in Uzbek society to care for, teach and supervise the younger generations and second, on their vast knowledge and experience in family health/nutrition. Interviewees often said, "The well-being of the family depends mainly on the GMs." These feelings toward the GMs are consistent

with the respect accorded to elders in Uzbek society and to the obligation of younger people to listen to and learn from their experience.

Based on Uzbek traditions and family expectations, the GMs carryout a number of activities that are intended to promote the health of women and children and to treat them when they are sick. On the one hand, GMs give advice and supervise other family members, including younger women, who have responsibility for the health and well-being of women and children. On the other hand, they directly provide care to both women and children. Both of these functions are related to their three key roles: 1) coordinating family food and nutrition; 2) encouraging other household strategies to promote the health and well-being of children and women; and 3) managing illnesses and other health-related problems. (See Diagram III)

Diagram III: Key roles of GMs related to Maternal & Child Health

Key Roles of Grandmothers related to Maternal and Child Health

1. Coordinating family food and nutrition
2. Encouraging other household strategies to promote the health of women and children
3. Managing illnesses and other health-related problems

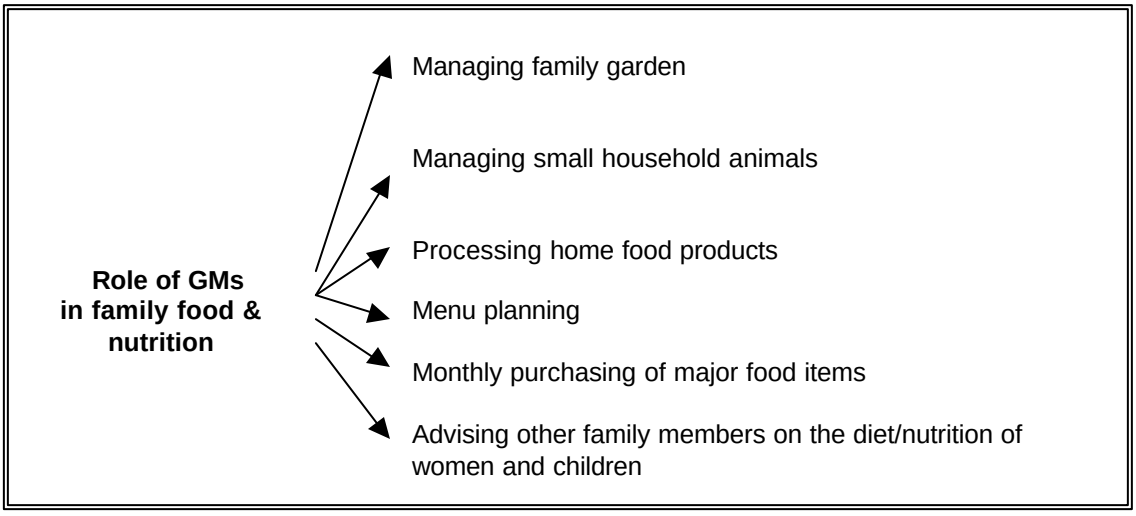
- **Coordinating family food and nutrition**

The GMs are responsible for several activities related to food production. These include: processing home produced food products; purchase of food products; meal planning and advising other family members on women's and children's diet. (See Diagram IV)

Most Uzbek families keep a number of animals either for consumption or for the production of eggs, milk etc. In most cases the GMs supervise the care of the animals and the use of animal products, though other family members may be responsible for actually caring for the animals (feeding them etc.) In most Uzbek homes in the study, there is a garden adjacent to the house where fruits and vegetables are grown. While the GF, men and younger women work in the family fields, the GMs are more involved with the smaller family garden that is close to the house. Along with their husbands, the GMs decide what should be grown at each time of year. When the products are harvested the GMs decide how much will be consumed in the family and how much will be sold in the market, although it is often other family members who take products to the market to sell. They also are involved in processing various household products to make other food items namely: butter, yogurt, dry cheese, milk and rice porridge (*kawa)*, drying fruit (apricots, grapes and olives) and bread. While the

daughters-in-law usually do most of the cooking, the GMs play a leading role in deciding what will be prepared. According to the daughters-in-law, even if they have an idea about what to prepare they consult with the GM "as a sign of respect for her experience and position in the family." While foods eaten in different families are similar, the modes of preparation may vary. The daughters-in-law are expected to modify the way they prepare bread, or rice, etc. in line with the mother-in-law's approach. In addition, the GMs advise both women and children what they should and should not eat.

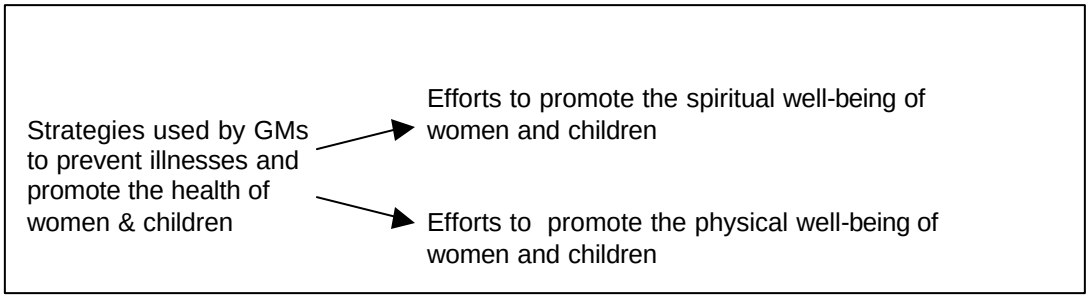
Diagram IV: The role of GMs in family food and nutrition



- **Other household strategies to promote the health of women and children**

GMs have a repertoire of strategies that they use and teach to other family members that are designed to promote the health and well-being of: pregnant women; newborns; young children; and breastfeeding women. These measures are of several types related to ensuring women and children's spiritual as well as physical well-being. Various practices promoted by the GMs related to pregnancy, newborn care and health, breastfeeding and childhood illnesses are discussed in detail in Part III of this report. However, some examples of their health promotion strategies are given here.

Diagram V: GMs' health promotion strategies

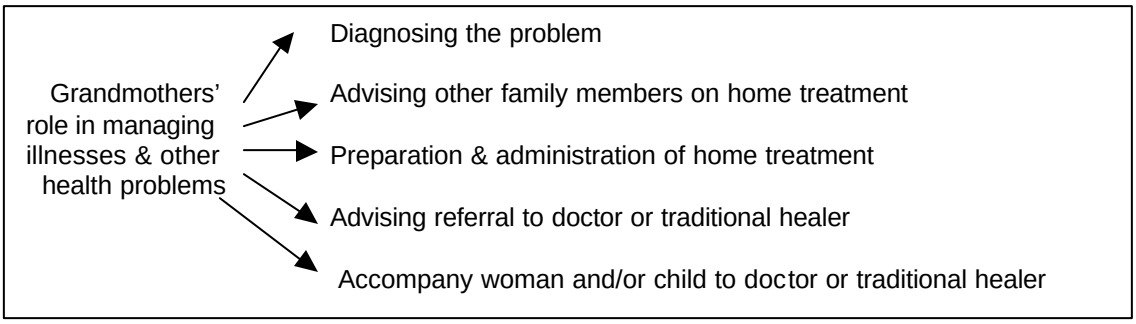


To provide spiritual protection to both women and children the GMs frequently say prayers for them and prepare talisman for them to wear. To ensure the physical well-being of newborns, the GMs stay with their daughters-in-law and newborns for 40 days after birth and forbid them from going outside the house to avoid exposure to germs that could harm the infant. To ensure the physical well-being of pregnant women they discourage them from doing heavy work, such as making a large batch of bread or carrying heavy things. To prevent a variety of health problems both for women and children, the GMs prepare an ancient Uzbek treatment called *isirak,* made by burning the *isirak* leaves to produce a smoke that purifies the air and the people who breathe it. To promote the physical well-being of young children all of the GMs encourage young mothers to breastfeed and prepare for them special foods to increase their breast milk. According to the young women interviewed, the GMs have a variety of strategies, illustrated by the examples above, that they use to promote the health and well-being of the young mothers and their children. At the same time, the GMs teach the young mothers the importance of these measures, encourage them to use them and in this way pass on their knowledge and experience based on both traditional and contemporary ideas. While some of the measures promoted by the GMs are "scientifically-proven" to contribute to MCH, others are not.

- **Managing illnesses and other health-related problems**

When a child or other family member is sick, the GM plays the leading role in coordinating and supervising management of the illness (See diagram VI). When an illness is first observed the GM makes an initial diagnosis and advises the mother and others in the family what to do. Often, and especially if the illness is serious, there is discussion amongst family members regarding how to proceed. In such discussions the GM typically plays a coordinating role given that "she is the most knowledgeable and experienced." In these matters, in almost all cases some type of home treatment is initially provided to the child, usually based on advice from the GM. In many cases she prepares traditional remedies or food for the child and often instructs the *keleen* to obtain the necessary ingredients. If the illness continues or gets worse the decision is often made to seek the help of a specialist, either a traditional healer or a formal sector health provider. The GM usually plays a leading role in deciding when and where the sick child should be taken, and she advises her son and *keleen* accordingly. Depending on the home diagnosis and how the illness evolves, GMs may advise to take the child to the modern health provider, to the traditional healer or simultaneously to both. Lastly, if the child is taken either to a "modern" or "traditional" specialist the GM may accompany the child and/or mother.

Diagram VI: Grandmothers' role in household management of illnesses

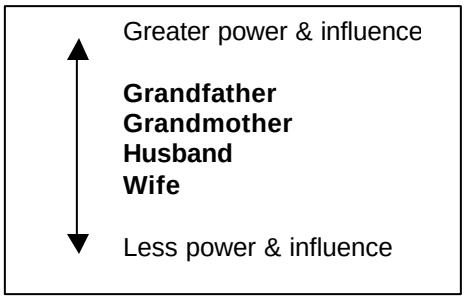


The role of daughters-in-law in Uzbek families

When a woman moves into her new husband's family, the mother-in-law is responsible for orienting her to her role and responsibilities as a family member and wife. In her husband's family she is expected to adapt to his family's way of doing things, to consult her mother-in-law before making decisions and to follow her advice in all situations. Usually, the mother-in-law has a strong influence on her son and she sometimes elicits his support to get her *keleen* to do as she would like.

In terms of power and influence in the family there is a definite hierarchy (Diagram VII) wherein the grandfather is at the top, the grandmother follows in second position, the husband (their son) comes next and in last place is his young wife. In this situation, the younger woman's ability to make independent decisions related to household matters, including maternal and child health, is constrained. If a young wife wants to put into practice a new idea, such as exclusive breast-feeding, that is not approved by her mother-in-law or others who have more influence in the family than she does, it can be very difficult for her to go against the values and priorities of other more powerful household actors.

Diagram VII : The Hierarchy of power and influence in Uzbek families



The role of traditional healers

While modern health services are generally quite accessible geographically, most families sometimes consult traditional healers who they believe have effective treatments for certain types of problems. In virtually all communities one or several of these types of traditional healers exist, each with their own specializations. (See Table VII). Communities believe that certain problems, like "babies who cry all the time" (colic), cannot be effectively treated by formal health providers whereas traditional healers can help deal with this problem. Similarly, in many cases the healers refer people to the formal health sector when patients are brought to them whose illnesses they do not feel competent to treat.

The treatments used by the healers involve the use of: spiritual methods (for example, prayer); psychological methods (for example, problem-solving and encouragement either to the parent and/or sick person); physical methods (for example, massage) and medicinal methods (for example, herbal remedies from extracts of fruits or leaves).

Often people simultaneously consult the modern and traditional healers in what some interviewees referred to as an "integrated approach to treatment." The modern health providers are generally quite accessible geographically and are frequently consulted. However, one of the attractions for people to consult the traditional healers is that they generally share similar socio-cultural beliefs regarding both the causes and treatment for different ailments.

According to the interviewees, traditional healers often provide very positive psychological support, for example, to pregnant women and to babies with colic. While the formal health providers must deal with many patients and do not have time for long discussions with their patients, the traditional healers tend to be very patient, encourage their clients to discuss their problems in depth and provide detailed advice on how to deal with their problems. Many of the healers use prayer as a form of treatment that also has a calming effect. For sick children, while the treatment advised by traditional healers may include spiritual and medicinal remedies, it is significant that they rarely give any advice on either fluids or feeding.

The most common type of traditional healers is the *mula* (male) and *mula bibi* (female). They perform certain religious ceremonies in the community, for example when there are births, deaths or weddings. In their treatments they often use prayer to calm their patients and to ask for God's help for recovery. Given the importance of Islam to most Uzbek families, the fact that the mula and mula bibis use prayer in their treatment increases their appeal as sources of support in time of need. The *ful bean* exist in many communities, however, generally people say they have less confidence in them, that many are not sincere in their work and are mainly interested in making money. Many women give reports of having received help for women-specific problems both from *Mula*

Bibi. These female healers help women not only with health-related problems, such as infertility, but also provide emotional support to women confronting difficulties in their families, work etc. They can be considered as "traditional Uzbek counselors" who take the time to listen to and help women increase their confidence to deal with their own problems. Interviewees state that they provide considerable support to pregnant and breast-feeding women and to women who are troubled by everyday problems in family life. The Kushnosh and Tabib appear to be less numerous though mentioned in some communities as valuable resource persons for mothers and families.

According to both GMs and younger women, if it is decided that a sick child should be seen by the traditional healer, is it more common for the GM to take the child to the healer than the mother. This is partly because it is usually the GMs who decide on the need to consult the healer and partly because the GMs appear to have stronger belief in the effectiveness of the healers' treatments. In some cases, the GM and mother go together, with the sick child, to see the healer. Younger women state that in many cases it is beneficial to take their sick child to a traditional healer, whereas in other cases they feel that it is not really appropriate. However, in these latter cases, often the GM has advised that the healer be consulted, the child's mother does not want to oppose her recommendation, and the GM takes the child on her own.

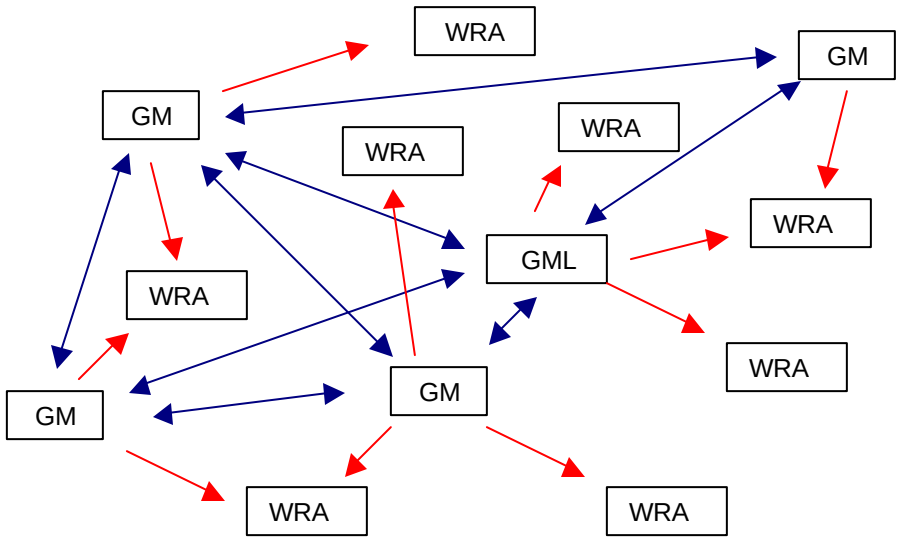
Table VII: Types of traditional healers and their specializations

Type of traditional healer	Specialization
Mula (male religious/spiritual healer)	Child with high fever and/or convulsions, family problems, sexual impotency
Mula Bibi (female religious/spiritual healer)	Babies who cry all the time (colic), problems with breastfeeding, family problems, child with high fever and/or convulsions, women with headaches, problems between mothers-in-law and daughters-in-law
Ful Bean (fortune teller)	Predicting the future
Kushnosh	Diarrhea with vomiting, mouth sores
Tabib	Child with nightmares, nervous mothers, broken bones, allergies
Shikast Bandi (bone setter)	Broken bones

Grandmother networks of communication and support

In the interviews with grandmothers and other community members it was clearly revealed that within a community there is considerable contact and communication between the GMs (See Diagram VIII). Virtually all GMs are part of a network of communication and support, through which information is shared, advice is given and problems are solved. According to the GMs, within the network there is a hierarchy of experience. On any given topic, such as treating childhood illnesses, the GMs who have greater experience are known by the others and consulted by them when greater expertise is required.

Diagram VIII: GM Networks, Leaders, Communication and Influence on Women of Reproductive Age



Informally the GMs frequently meet each other, especially in their neighbourhoods, to discuss such topics as childhood illnesses, their pregnant daughters-in-law, an up-coming wedding or other topics regarding family problems and well-being. In these informal meetings "we share our knowledge and experience" and "we learn from each other." For example, if a child in the family is sick, prior to seeking advice from a modern or traditional specialist, the informal GM network serves as an important source of consultation and advice.

There are relatively few formal activities organized at the community level specifically for GMs though in some cases groups of former teachers and nurses meet as a group on a regular basis for different activities. All of the GMs expressed their interest in being involved in other GM-specific activities.

- **Grandmother leaders**

In all communities there are both formal and informal GM leaders. In virtually all communities, in this part of the country, there are formal women leaders called *Kaivona.* They are chosen by the other women in the community based on "their experience in life," "their leadership skills," "their commitment to helping others," "their organizing and cooking skills" for weddings and other ceremonies, "their

truthfulness" and "their discreetness" (i.e. not spreading around the community the problems that others have confided in them). Many people say that "the Kaivonas are a gift from God" to the community. In all cases they are senior women and usually have one or more assistants who are also older, experienced women. At the mahalla (municipality) level, the Kaivona's are recognized as official representatives of the women in the community.

In addition to these formal GM leaders, there are also "informal GM leaders." In all of the groups interviewed it was easy to identify these women who are clearly respected and listened to by the other GMs. Common characteristics of the informal GM leaders are: they are intelligent, confident and articulate and often are among the older women in the group, though often not **the** eldest. Given the deep-rooted sense of respect in Uzbek culture for older persons and their experience, during the group interviews it was very evident that younger GMs take heed of what the GM leaders have to say, given their age and experience.

- **Grandmothers' commitment to the well-being of all women and children in the community**

Beyond the GMs' strong commitment to promoting the health and well-being of their own children and grandchildren, they express a sense of concern and responsibility for helping other women and children in the community. The study clearly shows that both the GM networks and the GM leaders are community resources for promoting MCH that have not yet been systematically exploited in MCH programs. In addition, their collective sense of responsibility for promoting the well-being of women and children in the community is another positive value that can be built on by strengthening their knowledge of priority MOH MCH practices

Grandmothers' attitudes toward "new" ideas about health

All of the 122 GMs interviewed overwhelmingly stated that they are interested in learning more about the "modern ideas about health." Many of them said, "The world is changing and we need to know more about the new ideas about MCH so that we can do a better job of taking care of our grandchildren, daughters and daughters-in-law." As regards the use of traditional versus modern MCH practices, there was a consensus amongst them that it is preferable to combine the two rather than to abandon their traditional practices in order to take up the "modern" approaches. In the past, GM-specific educational activities have not been organized in their communities and they all said that they would be most interested in such activities in order to share their experience and to learn from others.

Part III: Community norms and practices related to key MCH issues

Most studies on MCH in the community focus narrowly on the "behavior, or

practices, of women of reproductive age." As explained above, in this study the focus was not only to collect information on the practices, or behavior, of these younger women but also to identify the prevalent "socio-cultural norms" in the communities. A norm is a behavior that is generally considered by those living in that society to be either "appropriate" or "inappropriate" and that people are expected to follow. For example, in Uzbek society a socio-culturally defined norm is that "pregnant women should drink sweet tea" (containing *nabot* sugar). Another social norm is that "a newborn baby should not be taken out of the house during the first 40 days after birth." In both cases these are widely accepted "rules" that to a great extent determine the behavior of individual women. Also, in all societies there are certain persons who are responsible for communicating the norms to others and ensuring that they are followed. For example, if a woman with a two-week-old baby is seen out in the neighborbood, other women, and especially the GMs, would inform her that her behavior is inappropriate.

The analysis of health-related norms involves discovering not only what the community norms are, but also finding out who communicates the norms to others and who monitors their implementation.

- ***Care for women during pregnancy***

In Uzbek society children are greatly valued and the GMs often say that their greatest pleasure in life is having numerous and healthy grandchildren. This sentiment helps explain the fact that GMs in particular, and families in general, are committed to caring for a pregnant woman in the family to ensure that she has a healthy and successful pregnancy.

The care that pregnant women receive comes from two sources: from formal health providers (doctors and midwives); and from household advisors, mainly the senior women in the family. Most GMs and husbands actively encourage women to attend pre-natal clinics and they seek to apply the advice given by health providers. At the household level they also have strategies for caring for pregnant women that are rooted in socio-cultural traditions.

- **Formal health sector advisors: health providers**

Virtually all GMs and families encourage women to attend pre-natal visits and in the Navoi oblast, the majority of women make more than four visits during their pregnancy. In addition, home visits are made to pregnant women, especially during the last trimester. During both types of visits they are given advice regarding their diet, work and rest. It is of critical importance that women be properly advised regarding their diet during pregnancy, however, it appears that the nutritional knowledge of health providers is generally limited. In the basic training of doctors, nurses and midwives, very little information is given on

nutrition. For this reason, it appears that pregnant women probably receive limited, and perhaps only very general, advice on nutrition from health providers.

- **Household advisors: senior women**

While formal health workers provide advice and follow-up to women periodically during their pregnancy, at the household level women receive on-going advice and supervision from the senior women, especially the mothers-in-law. In the family context, at least for a woman's first pregnancies when she is living with her husband's family, the husband delegates to his mother the main responsibility for supervising the pregnancy based on her knowledge and experience. Cleary, sons depend heavily on their mothers to manage their wives' pregnancies. The young fathers stated, "I trust my mother completely to care for my wife when she is pregnant." Others said, "If my wife has problems it is easier for her to discuss with my mother. Then my mother can explain the problem to me and we can discuss what should be done." For young women who do not have a mother-in-law, such support may be provided by other senior women in the family, by the woman's own mother, or by GM neighbors.

The support and advice provided to pregnant women by their mothers-in-law is intended to ensure the well-being of both the woman and the fetus and addresses several critical factors related to: the woman's emotional state; the physical work she does; her rest/sleep; and their diet.

- **Advice for their psychological well-being**

The GMs are very conscious of the fact that for the well-being of the woman and her baby she should be calm, and not get nervous or stressed during her pregnancy. They advise the husband and other family members to be especially patient and supportive of the pregnant woman, and they advise the woman herself to spend time with her friends, to listen to music, not to look at ugly things nor get upset.

- **Advice on their work and rest during pregnancy**

All GMs say that they advise pregnant women not to do heavy work, such as digging in the garden, or making big batches of bread, and not to carry heavy things such as big amounts of food for the cows or large containers of water.

There is also a consensus amongst the GMs that pregnant women should rest during the day for one or two hours but that it is bad for them to sleep too much. There is a widespread belief amongst the GM that too much sleep will make the delivery difficult. Young women interviewed confirmed that this is the advice they receive but many stated that they would like to be able to sleep, or rest, more than they are allowed to.

- **Advice on their diet during pregnancy**

The study team concluded that while pregnant women receive some nutritional advice during their pre-natal visits, their principal "nutritional advisers" are in fact the GMs/mothers-in-law who observe them and advise, on a daily basis, what they should and should not eat. Most GMs state that the pregnant woman must eat well so that she will be strong and her baby will be healthy and that, "They should eat whatever they want."

Regarding the quantity of food advised, their opinions vary. Many GMs state that they advise pregnant women "to eat small quantities of food but often." However, GMs and young women alike say that often the woman suffers from "lack of appetite" during the first months of the pregnancy, and sometimes during the entire pregnancy. Some state that "women should not eat too much because that will make the fetus too big and will make the delivery difficult." In the study it was difficult to determine how widespread this idea is. Based on the interviews with young men, it appears that most husbands give limited advice to their pregnant wives regarding their diet and that men's knowledge of women's nutritional needs during pregnancy is very limited. They generally confide in the advice provided by their mothers.

- **Perceptions of anemia**

In the Navoi region, anemia is a very widespread problem among pregnant women. According to UNICEF data (CCA Uzbekistan, 2003) the level of anemia is extremely high in the region, approximately 95% of all women. In interviews with both GMs and young women most state that anemia is very common during pregnancy. In Uzbek anemia is referred to as *kon shirasi kam or* "low blood sugar." There are several ideas about the causes of anemia. Many GMs believe that anemia is due to "insufficient sugar in the blood" while some GMs and younger women think that it is due to "insufficient blood."

The widespread belief that pregnant women do not have enough sugar in their blood supports the idea that during pregnancy women should eat lots of sweet foods, especially tea with *nabot* (crystallized*)* sugar, honey, raisins, candies, etc. Sweet foods are also believed to provide energy to the body. The belief that pregnant women should eat lots of sugar is further supported, according to the two categories of women interviewees, by the fact that doctors sometimes prescribe glucose to pregnant women "to increase their blood sugar." In Uzbek society, tea is very widely and frequently drunk by adults and children alike. None of the interviewees said that drinking large quantities of tea can decrease iron absorption and that it can contribute to anemia. An earlier study in the project (KPC, 2002) also showed that very few people know that tea decreases the absorption of iron.

In addition to the belief that anemia is caused by insufficient sugar in the blood, another major cause identified by the interviewees are the "environmental conditions" in the Navoi area. In fact, there are many factories in the area which produce different chemical products (cement, nitrogen etc.) and that are involved in mining. In all of the focus groups with GMs, young women and husbands, interviewees expressed concern that the chemical and mining companies contribute to "dirty air" and "dirty water" that have a negative impact on their health, and specifically on pregnant women. The GMs stated that increased chemical emissions/pollution are a major reason that there is much more anemia now than when they were having children.

- **Foods recommended during pregnancy**

Most GMs said that "pregnant women should eat whatever they want." However, in addition to sweet foods there are some other foods that are believed to be especially good for pregnant women. In order to strengthen their blood they are encouraged to eat "red foods," particularly apples and also pomegranates. Many GMs believe that apples keep a pregnant woman strong and healthy. Evidently health providers often encourage pregnant women to eat lots of apples as well. Many interviewees stated that it is good for pregnant women to

In the typical Uzbek diet there is a lot of starch in bread, rice, dumplings and macaroni. Some interviewees said that it is not good for pregnant women to eat too much of these starchy foods because "It will make the fetus get too large and will make the delivery difficult." It seems, however, that most women continue to eat considerable amounts of starchy foods during pregnancy.

From the responses of the GMs and *keleens*, it seems that pregnant women, and people in general, eat very few iron-rich, green vegetables. Virtually the only green vegetables eaten are cucumbers and garnishes on salads, in very small quantity, (parsley, green onions and dill). While beets are widely available at all times of year and are quite inexpensive year-round, they are not perceived to be especially good for pregnant women and they are not encouraged to eat them. Generally, beets are consumed in salads in relatively small quantities.

Interviewees demonstrated very limited knowledge of the relationship between anemia and iron deficiency and the need for pregnant women to take iron supplements and to eat iron-rich foods. No GMs or younger women said that during pregnancy iron supplements are regularly taken, probably due in part to the cost of these tablets in Uzbekistan. Many interviewees stated that pregnant women should eat meat but due to the economic level of most family's meat consumption by pregnant women is generally limited. Liver was infrequently mentioned as being beneficial for pregnant women. While it is much less expensive than meat, interviewees stated that it is not often eaten by pregnant women because many "do not like the taste" or "fear that it is dangerous to eat."

Through the in depth interviews it was not possible to collect precise information on food consumption patterns by pregnant women. In order to develop strategies to promote improved nutritional practices it would be useful to carry out such studies (for example, using the 24-hour recall methodology) at different times of year when food availability differs.

B. Care of newborns

Almost all women (more than 98%) give birth in formal health facilities, either in hospitals or birthing houses, and women and their babies usually stay there for 3-4 days to rest and to allow health providers to detect any problems before they return home. It is widely recognized that the newborn is fragile and there is constant concern that he/she may be harmed by the evil eye. When the newborn arrives at home, there are a number of traditional and symbolic activities that are carried out by the senior women along with other influential community actors to protect the baby and promote his/her well-being in the first weeks and months of life. In addition, the GMs both advise young mothers, and directly undertake themselves, a variety of health promoting strategies related to: breastfeeding; the child's moral development; the child's physical development; feces disposal; hygienic procedures for washing the baby's clothing; and seclusion of the baby for 40 days.

- **Putting the baby in the cradle**

The ceremony of putting the baby in the cradle for the first time is a significant ritual in Uzbek society. Usually the maternal GM provides a beautifully decorated cradle. The baby is put in the cradle for the first time by one of the older GMs in the community, often the Kaivona, and the Mula or Mula Bibi usually takes part in the ceremony. The young children in the family are present for the ceremony and are given sweets as they gather around the cradle. A number of symbolic things are done to protect the baby: the Mula or Mula Bibi whispers a verse from the Koran into the baby's ear so that he/she will becomes a Muslim; before putting the baby in the cradle the *isirak* treatment (from the smoking desert plant) is used, a knife is put in the cradle to protect the baby from evil spirits); a mirror is put under the pillow of the baby so that if an evil spirit or the devil comes to bother the baby it will see the mirror rather than the baby. Also nuts are often put in the cradle to make the baby strong. All of these elements reflect traditional Uzbek beliefs and constitute important family and community strategies to protect the newborn.

- ***Chilla:* 40 days of seclusion**

Another beneficial traditional practice is that for 40 days after birth the baby and mother must stay inside to allow the woman to recover and to protect the baby from harmful things such as "microbes" or the "evil eye." During *chilla,* the young mother is not supposed to sleep with her husband and she stays in a room apart

with her baby and the GM. The GM closely supervises the mother and baby during this period, and initiates the young mother to her role in caring for the newborn.

- **Other traditional Uzbek practices**

There are other traditional practices intended to protect the baby and prepare him/her for life. These are all coordinated by the GMs, or senior women in the family. Coins are put in the baby's bath water for good luck. Salt is also put in the bath water so that the baby will not sweat. The baby is massaged with sheep fat in order to strengthen his/her body. And *isirak* is frequently used in the baby's room to protect him/her from bad spirits and illnesses. To soothe and begin educating the baby, GMs sing lullabies to the child "to show love for him/her" and "to begin teaching Uzbek values." For the first 40 days the child's feces are kept and buried under a tree in the garden. This is done in order to…
In order to protect the baby from "microbes" his/her clothing is washed separately from that of other family members.

- **Breastfeeding**

Breastfeeding is almost universal in Uzbekistan (96%) and amongst the different categories of interviewees there was a strong consensus regarding its benefits. The most frequently cited advantage of breastfeeding is that "it makes a baby healthy" but other benefits include that it "instills in the child greater respect for elders," "makes the child more intelligent" and "improves his/her physical development."

- **Koranic advice on breastfeeding**

All interviewees agreed that the Koran encourages breastfeeding. In addition, all argued that the Koran prescribes a longer period of breastfeeding for baby boys than for baby girls, though the lengths of time varied from one group of interviewees to another. Many said that girls should be breastfed for two years whereas for boys it should be continued for three years. The explanation for the longer period of breastfeeding for boys was often that "boys have to work harder in life." Some interviewees said that health providers also advise to breast feed boys longer than girls.

- **Support for exclusive breastfeeding**

The project has actively promoted exclusive breastfeeding (EBF) through training and supervision of health providers and through the community health education activities, particularly with the booklet on key MCH messages. In the baseline KPC survey 9% of women said that they exclusively breastfeed for 4-6 months. In the midterm KPC survey in 2002, 58% of women said that they exclusively

breastfed their last infant for 4 months and 42% said that they exclusively breastfed for 6 months.

In the group interviews the majority of GMs and young mothers initially stated that babies should receive EBF for six months. However, as the discussion on breastfeeding continued, it was found that although most women in both age groups believe that it is desirable to EBF for six months, they identified a number of factors that prevent them from putting this ideal into practice. Due to these constraints, while there has undoubtedly been an increase in EBF since the project started, it may not be as great as the mid-term KPC results suggest.

Some GMs and young women stated that their youngest child was EBF for six months after they learned about the importance of EBF from Project HOPE-supported activities in their communities. However, many interviewees, GMs and young women alike, explained various situations in which infants under six months of age were given other fluids and foods, even though they believe that they should only be given breast milk.

In interviews with young fathers, while they all stated that breastfeeding is beneficial, few were knowledgeable about EBF. Similar results were obtained in the mid-term KPC in which 75% of men stated that for children under 6 months of age breast milk is not sufficient to nourish them adequately.

- **Constraints to exclusive breastfeeding**

There are a series of factors, situations and beliefs, that were frequently cited as constituting constraints to EBF.

There is a widespread belief that in some cases a woman's breast milk is of "poor quality" and, therefore, insufficient for a child's needs. This assessment is usually based on the observation that "the milk has a bluish color." Interviewees also stated that in some cases health providers have told women that there was not of good quality. The belief by some community members that health providers acknowledge that "breast milk is sometimes of inadequate quality" undoubtedly reinforces this idea at the family/community level. Several causes of this problem were cited by interviewees: the breast feeding woman is either inadequately nourished or sick, or she has been contaminated by polluted air or water (both which communities believe are prevalent in the Navoi region). The most common way of treating this problem is to improve the diet of the breast feeding woman but in the meantime the young baby is given other things to eat.

Equally widespread is the belief that "some women do not have enough breast milk," also warranting feeding the young child additional things. In terms of frequency, according to the interviewees the problem of insufficient quantity of milk is more frequent than that of inadequate quality. The signs observed that lead to the conclusion that a women's breast milk is inadequate are: a) the child

cries a lot even while breastfeeding and cannot be calmed down; b) the breasts are soft and empty; c) the woman cannot feel the flow of breast milk; and d) there is no breast milk being secreted. The causes of this problem are rather similar to those attributed to inadequate quality of breast milk: a) the woman is either weak or sick; b) the mother did not eat properly either during her pregnancy and/or after delivery; c) the mother has insufficient love for her child or doesn't pay enough attention to him/her; d) the mother suffers from stress for various reasons; and e) environmental pollution of the air or water. In this case the treatment prescribed involves: improving the woman's diet; paying more attention to the child; and increased rest.

Another situation in which women do not EBF, but which does not appear to be too widespread, is when they work away from home and leave their baby with the GM. During the time they are away, which may be all day, the GMs give their babies other fluids and soft foods.

Another widespread belief is that babies need water in addition to breast milk "to quench their thirst." In the summer in Navoi it is very hot and especially during the warm weather it is believed that "babies, like adults, need to drink water." Related to this same belief, another constraining factor is the fact that for many years health providers have advised giving water along with breast milk. Again, while many of them may now be advising otherwise, following their project-supported refresher training on EBF, the fact that health providers advised giving water to infants in the past probably continues to provide support for this practice,

A last constraint to EBF is a series of socio-cultural beliefs about certain things that should be given to babies at an early age to make them strong and healthy, namely sheep fat, bone marrow and dill water. In the study it was not possible to determine exactly how much of these different foods are given and the quantities may be quite small. In any case, it may not be easy for women to give up these age-old practices passed on to them from GMs and their ancestors even though they strongly believe that EBF is beneficial,

After delivery, women may receive advice and encouragement to EBF from health providers while they are still in the hospital. However, once they return home the advice on BF that they receive comes primarily from other women in the family, namely the mother-in-laws, during the first weeks and months of the baby's life. In light of these communication dynamics, it is likely that their practices are more influenced by what they hear on an on-going basis from the experienced and concerned women in their entourage than by what they hear from health providers who have only periodic contact with new mothers.

- **Foods and fluids given to infants under 6 months of age**

In the situations described above in which infants are given other fluids and foods in the first months of life, the most commonly given fluid is water, which is often

given from the first weeks of life. Other fluids/foods frequently given, usually after 3-4 months, include cows milk, fruit juices (apple, pomegranate, cherry and apricot) and soups, bone marrow or sheep fat "to make the baby strong" and tea with sugar, also "to give energy" to the baby. Some interviewees said that some doctors advise giving sweet tea to infants. The GMs and young women who said that they had adopted EBF with their last infant admitted that previously they too had given these types of fluids and foods to the child before 6 months of age.

- **Special foods for breastfeeding women**

Breastfeeding women are encouraged to eat softer, more liquid foods like soups and mashed foods, to avoid getting diarrhea. In order to increase the production of breast milk, two special, traditional foods, *atala* and *shula,* are widely recommended by the GMs and appreciated by breast feeding women. *Atala* is made from wheat flour, milk and eggs. *Shula,* which means "soft," is prepared with mushy rice and other pilaf ingredients, namely carrots, small pieces of meat and oil. Both GMs and younger women report that these foods are very effective in increasing the quantity of breast milk.

- **Other traditional advice regarding breastfeeding**

In order to ensure optimal breastfeeding there are several other types of advice given to young women by senior women: to wear the special *lachak* dress during breastfeeding that covers the breast so that it cannot be seen by others nor harmed by the evil eye; to wash the breast before breast feeding and after being out in the sun; and to squeeze out some milk if a woman has been frightened or upset. In addition, *isirak* is also used to protect both the breast feeding woman and her child from illness.

- **Introduction of first (complementary) foods**

In most cases the first complementary foods are introduced when infants are between 4 and 6 months of age. In addition to breast milk and boiled water, first foods given to young children usually consist of mashed fruits (especially apples) and vegetables (carrots), cow milk and tea with sugar. After six months, along with breast milk, children are typically given fruit compote, rice and farina (millet or *manna*) porridges, mashed potatoes and carrots with oil, fruits, soup, meat and dairy products (yogurt, sour cream, pot (dry) cheese. From one year of age children usually eat whatever other family members eat. As with other aspects of women's and children's health/ nutrition, the GMs are very influential in deciding when and what complementary foods will be introduced to the young child.

- ***Nutrition of young children***

When asked which foods are especially good for children to eat to keep them healthy and make them grow properly, the different categories of male and

female interviewees frequently stated “Children can eat whatever foods they like.” In other words, most interviewees did not have strong ideas regarding foods that are particularly beneficial for young children. Nevertheless, foods generally thought to be important for children to eat are “sweet foods,” particularly foods with *nabot sugar (*boiled/crystallized sugar) which is believed to be “easier to digest than white table sugar” and to be “richer in calories,” including tea with nabot sugar. The overall conclusion drawn by the study team was that the general level of knowledge of the relative nutritional values of available foods is quite low both among female and male family members, old and young alike.

D. Care of the sick child

In the mid-term KPC survey (2002) most respondents (85%) stated that when a child is sick they immediately “seek the advice of a formal health provider.” In the focus group interviews, however, the predominant response was very different. In almost all cases interviewees in all four categories stated that with a sick child the first strategy consists of “home treatment.” The difference between the responses in the two studies may be due to the fact that the KPC respondents wanted “to please the interviewers” by saying that they immediately consult formal health providers rather than discussing the “informal advice” they receive within the household. Knowing that such “interviewer bias” can be a constraint, in the focus group interviews a special effort was made to make interviewees feel comfortable talking about traditional and home treatments.

According to all groups of interviewees, when there is a sick child in the family GMs are responsible for coordinating the treatment strategy, given their considerable experience. The following statement, made by a young father, illustrates how other family members typically depend on the GM to assume a dominant advisory role when a child is ill. ”When a child is sick we should always ask the GMs advice. She has raised many children and had many traditional and modern treatments that can be used. I follow the advice of my mother and my wife is expected to do the same.”

The decision regarding how a child should be cared for is largely determined by the perceived cause of the illness. Generally it is the GM who makes an initial diagnosis of the problem and identification of the cause Two types of causes are cited: spiritual causes, due to the evil eye, the devil, etc.; and physical causes, such as the hot weather or dirty water. Certain illnesses, such as epilepsy, that are believed to be due to spiritual causes (e.g. the evil eye), are often taken directly to the traditional healer because it is believed that the formal health providers cannot treat them. Similarly, from experience many women say that for babies who “cry all the time” (colic) doctors have no treatment for this problem so these children are taken to the Mula or Mula Bibi whose treatment is generally effective.

- **Integrated household management of the sick child: modern and traditional treatments**

Virtually all interviewees, younger and older alike, agree that to increase the chances of recovery it is better to use an integrated approach to treating childhood illnesses, consisting of both traditional and modern practices. This belief is based on their experiences which have shown them that the combined use of traditional and modern treatments is effective. In one of the group interviews with grandfathers it was suggested that it would be good to make a booklet on "integrated treatment," similar to the one produced by Project HOPE on key "modern" MCH messages, that would include key "traditional" MCH practices.

In home treatment of sick children, interviewees' responses suggest that much more importance is given to administering "medicines" and other "treatments" to the child rather than to giving them fluids and food. Traditional treatments can consist of herbal or fruit-based infusions, massage or other spiritual treatments such as prayers and *isirak.* In addition, various types of pharmaceutical "tablets," including antibiotics like "furazolidon" and "levomicetin," are sometimes used, usually obtained in the open market.

When asked about home treatments for the sick child very few interviewees made any mention of food and fluids. The vast majority of the interviewees, in all four categories, did not emphasize the need for a sick child to consume large quantities of fluids, to eat adequately, and to continue to breastfeed, if the child is breastfeeding age.

Initial home treatment is generally the responsibility of the child's mother and GM. In many cases, men are not even informed of the illness, as they spend most of their time away from home and because they assume that their mothers will competently handle such problems. Following initial home treatment, if the child does not get better the GM usually advises her son and daughter-in-law that the child needs to be referred to a specialist. Health facilities are generally quite accessible and in most cases the decision is made to take the child to the doctor. However, in some cases it is decided to first take the child to the traditional healer. In other cases, it is decided that it is necessary to simultaneously consult both the modern and traditional sector specialists. If the child is taken to the doctor the GM may accompany the child's mother, or the parents make take the child on their own, often depending on the husband's availability. If the child is taken to the traditional healer often the GM takes the child alone, but sometimes accompanied by the mother. After consultation the mother and GM assume responsibility for preparing and/or administering follow-up treatments at home. Some younger women and men interviewees say that "the mother is in charge of the sick child" whereas others say "the GM is in charge." All agree, however, that in all cases the GM plays a leading advisory role and that she always follows

closely the evolution in the child's condition. This often includes sleeping with the mother and child, especially when a child is very sick.

According to the young fathers interviewed, they are generally not involved in caring for sick children, in terms of administering medicines, feeding etc. If the illness becomes serious and/or additional resources or logistics are required, the father is usually informed either by his mother or wife. As discussed above, at this point it is often said that "the father makes the (official) decision to take the child to a specialist," in most cases based on the advice of his mother, and sometimes his wife.

E. Feeding the child after an illness

The GMs and young women were asked how they feed a child after recovery from an illness. In almost all cases both age groups of women stated that after an illness the "child's stomach needs to rest and slowly learn how to work again." Based on this reasoning, most interviewees said that the child should eat "less than normal" while some stated that he/she should eat "as usual." Almost none of the younger nor the older women interviewed expressed the idea that children need to eat more than normal in the post-recovery period.

F. Household management of diarrhea

Navoi oblast has the highest proportion of infant deaths due to diarrhea (12% of IMR in l997). While many children with diarrhea are seen in health facilities, the recovery of sick children depends primarily on what is done at the household level, in terms of fluid and feeding, prior to and after visiting a health provider. With the time available, it was not possible to do an in depth analysis of home management of diarrhea but information was collected on: the perceived causes; and home treatment in terms of medicine, fluids and feeding. As with other childhood sicknesses, the GMs play a major role in diagnosing the illness and in prescribing treatment within and outside the home, and advising both young women and their husbands what should be done.

- **Causes of diarrhea**

GMs and young women identify two types of causes of diarrhea, those of spiritual origin and those of physical origin. In addition, it is believed that in some cases diarrhea is due to factors directly affecting the child while in other cases it is due to factors affecting the woman, and indirectly the child through her breast milk. Of those factors directly affecting the child some are related to spiritual, causes like evil eye and teething, and others are related to physical causes like when a child eats poorly washed food or unboiled water, or when he/she sits in a wet place. Causes of diarrhea related to the mother include: unhygienic practices like consuming unboiled water or unclean fruit, or having dirty hands; and breastfeeding after being out in the hot sun. It is interesting that in many cases

the same respondents identified both spiritual and physical phenomena that can cause diarrhea. In the mid-term KPC almost three quarters of the respondents (71%) said that diarrhea is caused by unhygienic factors. However, in the group interviews, the spiritual causes of diarrhea were cited more frequently than those related to the physical, unhygienic practices of either the woman or child. This difference may be due to the fact that in the focus groups the interviewees felt more comfortable to reveal some of their traditional beliefs.

- **Treatment of diarrhea**

According to the GMs and young women who were asked about how they treat diarrhea, virtually all of them stated that they use home treatments as a first recourse when a child is sick. Analysis of their responses clearly shows that the focus of the treatment is much more on eliminating the physical manifestations of the illness rather than on strengthening the child's body through the administration of food and fluids.

Many of the home remedies are based on traditional Uzbek practices whereas others involve the use of modern treatments. The treatments used have two purposes. First, in order "to warm the stomach" and "to decrease gas," massage is used as well as warm compresses applied to the stomach. Second, in order "to harden the stools" and stop the diarrhea various things are given to the child primarily traditional infusions made from fruit leaves (peach), fruit peals (pomegranate) or camel thorns, all given in very small quantities (1-2 teaspoons), rice water, hard boiled eggs and antibiotics (Levomicetin, Furazolidon). Interviewees say that both the traditional remedies and tablets are effective in "stopping the diarrhea." Clearly, the primary concern is to stop the diarrhea.

In the group interviews, many respondents initially said that they give the MOH-promoted Rehydron (ORS) to a child with diarrhea. However, in almost all cases they later stated that "children do not like the taste of Rehydron" and that "it is very difficult to get them to swallow it." In most cases the reason stated for giving Rehydron is not to rehydrate the child but rather "to clean the stomach" or "to decrease inflammation of the intestine." It seems that the justification for the use of Rehydron is more for its medicinal properties than for its rehydrating effect. These results are similar to those of the mid-term KPC survey wherein only l9% of respondents knew the purpose of the Rehydron. It is possible that its sour taste also contributes to the idea that it is a medicine, given that most traditional Uzbek liquid remedies (infusions) are bitter.

- **Fluids given to the sick child**

As mentioned above (in the discussion of home treatment strategies), compared to efforts to "stop the diarrhea," most GMs and younger women appear to be much less concerned about rehydrating the child with diarrhea. Some interviewees did clearly state that the child must be given fluids to replace those

that are lost. However, the majority expressed the idea that "giving the child too many fluids will increase the diarrhea." These results are similar to those of the mid-term KPC where only one third (33%) of the respondents (primarily younger women) said that a child with diarrhea should be given "lots of fluids." The belief that "more fluids will lead to more diarrhea" may be reflected in the responses of about half of the interviewees in the earlier study wherein one quarter of the respondents (24%) said that a child should be given the same amount of fluid as usual, one fifth (19%) said that fluids given should be less than usual and where 7% said that no fluids should be given.

- **Types of home fluids**

The MOH policy on home management of diarrhea states that either Rehydron or home fluids should be given for mild diarrhea. Virtually all interviewees stated that it is easier to give a sick child home fluids rather than Rehydron, due to the taste. Home fluids used include: boiled water, fruit juices (especially apply and pomegranate) and fruit compote. While all interviewees said that they have access to these fluids, only a minority of the interviewees (GMs and young women) said that the child with diarrhea needs to be given large quantities of them.

- **Feeding of the sick child**

A minority of the GMs and younger women interviewed said that the child with diarrhea should be encouraged "to eat as usual." However, the predominant view expressed by both age groups of women is that when a child has diarrhea "the stomach needs to rest" and, therefore, he/she should be given limited amounts of both foods and fluids. These responses are similar to those from the mid-term KPC survey in which almost sixty percent (59%) of the respondents said that the child with diarrhea should eat less than usual, and an additional 21% said that the sick child should not be fed at all.

- **Diarrhea with vomiting**

There is a widespread belief amongst all categories of interviewees that when vomiting accompanies diarrhea, the cause of the illness is different than that of other types of diarrhea and the treatment required is also different. It is believed that diarrhea with vomiting is of spiritual origin, due to the evil eye or other spirits. In these cases the GM usually makes the diagnosis. First, traditional remedies are used at home including massaging the stomach with oil, reciting Koranic verses and giving the child rice with yogurt and second, the child is taken to the traditional healer (Mula or Ful Bean) as it is believed that this illness cannot be cured by modern medicine. It is believed that in most cases the illness is aggravated by "something caught in the child's throat." There are numerous reports of how the healers have removed an object from the child's throat with their fingers and how the child has recovered shortly thereafter.

IV. Conclusions

Family strategies to promote MCH: A significant finding is that all families have their own strategies both for promoting the health of their women and children and for dealing with sicknesses when they are ill. In all cases, these strategies are based in part on modern health promotion and treatment ideas and in part on traditional Uzbek concepts of how to promote health and treat illnesses. At the family level these strategies are coordinated by the senior women, or grandmothers, who have a very strong commitment to doing everything possible to promote the well-being of their children and grandchildren.

Influences on household practices related to MCH: The study clearly showed that household practices related to the health/nutrition of women and children are influenced by various family members. Within the household, women and children are surrounded by other family members who, on a daily basis, directly or indirectly influence their well-being in one way or another. Household strategies and practices related to maternal and child health (MCH) are primarily influenced by senior women, or grandmothers, also by younger women themselves, and to a lesser extent by fathers and grandfathers. These various household actors have an influence on the health/nutrition of women and children both when then are well and when they are sick. Women with young children have periodic contact with and are advised by health providers both when they consult with them at the hospital and clinics, and when health workers make home visits. However, on a day-to-day basis, most of the advice and supervision that younger women receive comes primarily from GMs, and also from other household members, with whom they are in constant contact.

Respect and learning from the elders: a core cultural value: One of the core values in Uzbek society is respect for elders. Younger people are taught to value the experience, knowledge and advice of grandfathers, grandmothers and other senior family members. There is some concern, however, expressed especially by the grandfathers, that in contemporary society some young people do not show adequate respect for the elders in their families and communities. The grandfathers stated that ongoing efforts need to be made to preserve and enforce this value. The importance of "respecting the advice of the elders" applies to MCH promotion insofar as the younger generation is specifically expected to value the experience of senior women in this field. In all MCH matters, women and their husbands are specifically expected to respect the experience and advice of their mothers-in-law.

The multi-faceted role of grandmothers in the family: Within the family, GMs have a variety of responsibilities that are critical to the day-to-day functioning of the household. All family members view the GMs as "the general managers in the family." Their role includes management of human resources, financial resources, food resources and health-related situations. GMs' key activities

include: coordination of family food and nutrition (including gardening, small animals; processing and preparation of food products; education and care of grandchildren; education and supervision of daughters-in-law (*keleens*); advising husbands and sons on family matters; delegation and supervision of daily domestic tasks; management of the family budget; implementing health promotion strategies and managing illnesses; teaching family members about Uzbek culture and traditions. The GMs' expertise in all of these critical aspects of family life underpins the respect accorded to them and their wide-ranging influence within the family context. Their influence in MCH matters is only one dimension of the broader scope of their authority in the household.

The role of grandfathers in the family and in MCH: The grandfathers (GF) are the "head of the household," having overall responsibility for promoting the well-being of the family. GFs spend most of their time away from home and delegate responsibility to their wives for the daily running of the household, including management of health matters. The GFs clearly state, "In the family all health matters are the responsibility of women." GFs usually get involved in health matters only if a family member is seriously ill. They state that when a child is sick they often provide support, of one type or another, usually based on the advice they receive from their wives.

The role of husbands in the family and in MCH: The main roles of men/husbands in the family are: to provide the family with money and food; to help educate the children; and to provide financial and logistical support when a family member is sick. Similar to the grandfathers, men with young children stated that they spend little time at home and have limited knowledge of health-related issues such as pregnancy, newborn and child health and nutrition. They depend primarily on their mothers to advise them on all issues related to the well-being of their wives and children including, for example, the follow-up of their wives when they are pregnant and of their children when they are sick. When a child is sick, it is often said that, "It is the father who decides if he/she should be taken to the doctor." However, their "decision" is in most cases based on advice received primarily from their mothers, rather than from their wives.

Household health advisors: the Grandmothers: All categories of interviewees agree that GMs are the key household advisors both in promoting MCH and in managing health problems of women and children. Given their vast knowledge and experience in MCH, as compared with other family members, they are viewed as "resource persons" both for their own families and neighboring families. It is frequently said that, "The well-being of the family depends mainly on the GMs." GMs' responsibility in family health is related to three key roles: 1) coordinating family food and nutrition; 2) implementing household strategies to promote health; and 3) managing illnesses of family members. In this third role GMs assume the main responsibility for: diagnosing illnesses; managing home treatment; and deciding on referral of the sick either to formal health providers or to traditional healers.

Modern, traditional and family health sectors: Families in rural Navoi have access to three sources of health care provided in the modern, traditional and family sectors. In the villages in Navoi modern health facilities are readily accessible and frequently used especially by women when they are pregnant and family members when they are sick. In addition to these services, traditional health providers, or "traditional healers" operate in virtually all communities. They are consulted by most, but not all families primarily for their curative services but in some cases for their preventive strategies for women and children. In all cases, efforts to promote health and to manage illnesses take place primarily in the "family sector" wherein the senior women provide leadership and expertise.

Autonomy of women of reproductive age related to MCH practices: In the rural areas of Navoi, when young women marry they move into the extended family context of their husband's parents' home. During the formative period of their first pregnancies, deliveries and caring for themselves and their young offspring, they are oriented and carefully supervised by their mothers-in-law. In the extended family setting, the knowledge and practices they acquire are strongly influenced by the teaching and expectations of these experienced and authoritative women. In this context, they have a relatively limited degree of autonomy to adopt MCH practices that are not approved of by these senior women.

Role of grandmothers in community MCH programs: In the family context, GMs occupy a position of influence and authority in all MCH matters. However, in past community MCH programs in Uzbekistan GMs have not been explicitly involved as key actors. This constitutes a gap between Uzbek family realities and MCH program strategies.

Grandmother networks: In all communities there is considerable contact and communication between the GMs. Virtually all GMs are part of informal networks of communication and support, through which information is shared, advice is given and problems are solved. According to the GMs, in these informal meetings between GMs "we share our knowledge and experience" and "we learn

from each other." For example, if a child in the family is sick the informal GM network serves as an important source of consultation and advice. Furthermore, within the networks there is a hierarchy of experience. On any given topic, such as treating diarrhea, GMs who have greater experience are known by the others and consulted by them when they feel that greater expertise is required. Another significant characteristic of the GM networks is that they all express a collective sense of responsibility for promoting the well-being of all women and children in the community.

Grandmother leaders: In all communities there are both formal and informal GM leaders. In virtually all communities in rural Navoi, there are formal women leaders called *Kaivona.* They are chosen by the other women in the community based on their leadership skills, truthfulness, commitment to helping others, organizing and cooking skills. At the mahalla (municipality) level, the Kaivona's are recognized as official representatives of the women in the community. In addition to the formal GM leaders, there are also "informal GM leaders." In all of the groups interviewed it was easy to identify these women who are generally older GMs, are intelligent, articulate and respected by the others. During the group interviews it was very evident that younger GMs take heed of what the GM leaders say, given their age and experience.

Transmission of socio-cultural norms to the next generation: In Uzbek society, it is the role of senior women, or GMs, to orient/educate the younger generation to the "appropriate ways of doing things." In the realm of MCH younger women one of the GMs' priority roles is to communicate to younger women what they should and should not do related to their own health and that of her children, i.e. to transit to them the *socio-cultural norms* regarding various MCH practices. For example, it seems that one of the community norms, which all GMs pass on to their daughter-in-laws, is that during pregnancy the woman should eat lots of apples. The fact that there is considerable communication between the GMs probably explains why there is a consensus amongst them regarding such practices, or "rules". In many cases the community-accepted norms, related to how to treat diarrhea , how to breastfeed or what to eat during pregnancy, draw both on "modern" and "traditional" practices. There is considerable pressure on younger women to conform to such norms and it is quite difficult for an individual woman to adopt practices that go against these culturally-accepted norms.

Grandmothers' attitudes toward "new" ideas about maternal and child health: All of the GMs interviewed overwhelmingly stated that they are interested in continuing to learn more about the "new ideas about health." Many said, "The world is changing and we need to know more about the new ideas about MCH so that we can do a better job of taking care of our grandchildren, daughters and daughters-in-law." As regards the use of traditional versus modern MCH practices, there was a also consensus that it is preferable to

combine the two rather than to abandon their traditional practices in order to take up the "modern" approaches.

Care and supervision of women during pregnancy: The care that pregnant women receive comes from two sources: from formal health providers (doctors and midwives); and from household advisors, mainly the senior women in the family. Most GMs and husbands actively encourage women to attend pre-natal clinics and they seek to apply the advice given by health providers. While formal health workers provide advice and follow-up to women periodically during their pregnancy, at the household level women receive on-going advice and supervision from the senior women at that level, especially the mothers-in-law. Household strategies for caring for pregnant women include both modern and traditional practices. Husbands typically have limited knowledge about pregnancy and delegate the main responsibility for supervising the pregnancy to their mothers, based on their knowledge and experience.

Advice to pregnant women: The mothers-in-law provide extensive advice and support to their daughters-in-law to ensure the well-being of both the woman and the fetus. Women are advised: to avoid all stressful situations; not to do heavy work; and to rest during the day. However, they are also advised that "it is bad for them to sleep too much." There is a widespread belief amongst the GM that too much sleep will make the delivery difficult. Many young women stated that they would like to be able to sleep, or rest, more than they are allowed to.

Advice on women's diet during pregnancy: While pregnant women receive some nutritional advice during their pre-natal visits, their principal "nutritional advisers" are the GMs/mothers-in-law. This is due in part to the fact that generally health providers have not received comprehensive training in nutrition. The predominant influence of the GMs is also due to the fact that they observe and advise pregnant women in the family context on an ongoing, daily basis.

Most GMs advise pregnant women "to eat small quantities of food but often." However, some recommend that "women not eat too much because that will make the fetus too big and will make the delivery difficult." Husbands' knowledge of women's nutritional needs during pregnancy is very limited. They generally confide in the advice provided by their mothers.

Perceptions of anemia: Almost all GMs and young women agree that anemia is very common during pregnancy. It is referred to as *kon shirasi kam or* "low blood sugar" and many GMs and younger women believe that anemia is due to "insufficient sugar in the blood" while come think that it is due to "insufficient blood." The widespread belief that pregnant women do not have enough sugar in their blood provides supports the idea that they must eat lots of sweet foods, especially tea with *nabot (crystallized)* sugar, honey, raisins, candies, etc.

A third factor widely-believed to cause anemia is the "environmental pollution" in the Navoi area. Most GMs believe that polluted air and water are a major reason that there is much more anemia now than when they were having children. No GMs or younger women said that during pregnancy iron supplements are regularly taken, probably due in part to the cost of these tablets in Uzbekistan.

Foods recommended during pregnancy: Most GMs recommend that "pregnant women should eat whatever they want." In addition to sweet foods, other foods believed to be especially good for pregnant women include "red foods," particularly apples and also pomegranates. In the typical Uzbek diet there is a lot of starch (bread, rice, dumplings, macaroni) and it seems that most women continue to eat large amounts of starchy foods during pregnancy. It also appears that pregnant women eat very limited amounts of meat, largely due to limited family resources, and liver was infrequently mentioned as being beneficial for pregnant women. They also consume very few iron-rich, green vegetables. Dark leafy green vegetables are not extensively grown. Beets are inexpensive and widely available but pregnant women are not especially encouraged to eat them. Overall, both women and men interviewees demonstrated very limited knowledge of the relationship between anemia and iron deficiency and the need for pregnant women to eat iron-rich foods and to take iron supplements.

Care of newborns: It is widely recognized that newborns are fragile, there is constant concern that they may be harmed by the evil eye and when the newborn arrives from the hospital there are a number of traditional and symbolic activities carried out by the senior women in the family to protect the baby in the first weeks and months of life. Household level health promotion strategies are related to: breastfeeding; the child's moral development; the child's physical development; feces disposal; hygienic procedures for washing the baby's clothing; and seclusion of the baby with the mother for 40 days during *chi**lla.***

Breastfeeding: There is a strong consensus among women and men, old and young alike, that breastfeeding is beneficial and essential for the newborn, primarily because "it keeps a baby healthy," but also because "it instills in the child greater respect for elders," "makes the child more intelligent" and "improves his/her physical development." Although most women in both age groups believe that exclusive breast feeding (EBF) for six months is desirable, they identified a number of factors that prevent them from putting this ideal into practice. More frequently mentioned constraints to EBF are: "poor quality breast milk;" "insufficient quantity of breast milk;" the need to give water "to quench the baby's thirst;" traditional beliefs that infants should be given special things like sheep fat, bone marrow and dill water to make them strong; cases where the mother works away from home and leaves her baby with someone else; and past advice from health providers that infants should regularly be given water. In order to increase the production of breast milk, two soft, traditional foods, *atala* and *shula,* are widely recommended. Both GMs and younger women report that these foods

are very effective in increasing the quantity of breast milk. While most health providers are apparently now advising EBF they have relatively few opportunities to give this advise new mothers. It is likely that women's breastfeeding practices are more influenced by what they hear on an on-going basis from the experienced and concerned women in their entourage.

Foods and fluids given to infants under 6 months of age: In addition to breast milk, in the first months of life the most commonly given fluid is water, often given from the first weeks of life. Other fluids/foods frequently given, usually after 3-4 months, include cows milk, fruit juices (apple, pomegranate, cherry and apricot) and soups, bone marrow or sheep fat "to make the baby strong" and tea with sugar, also "to give energy" to the baby.

Nutrition of young children: When asked which foods are especially good for children to eat to keep them healthy and make them grow properly interviewees frequently stated, "Children can eat whatever foods they like." Nevertheless, foods generally thought to be good for children to eat are "sweet foods," particularly foods with nabot sugar, believed to be "rich in calories." The general level of knowledge of children's nutritional needs and the relative nutritional values of available foods appears to be quite low both among female and male family members, old and young alike.

Care of the sick child: According to all groups of interviewees, when a child is sick in the family GMs are responsible for coordinating the treatment strategy, given their considerable experience. Generally it is the GM who makes the initial diagnosis of the problem and identification of the cause. Based on the diagnosis, usually the treatment strategy involves an integrated approach consisting of both traditional and modern practices. There is a strong belief that the combined use of traditional and modern treatments is usually more effective than only using modern treatments. Initial treatment is almost always at home, often followed by referral most frequently to the doctor, sometimes to the traditional healer and sometimes to both simultaneously**.**

In home treatment of sick children much more importance is given to administering "medicines" and other "treatments" to deal with the perceived cause of the illness than to giving fluids and food to strengthen the child's body and facilitate recovery. After a child recovers from an illness, most GMs and younger women state the child should eat "less than normal" because " the stomach needs to rest and slowly learn how to work again." Some women stated that in the post-recovery period the child should eat "as usual."

Generally men are not directly involved in caring for sick children, in terms of administering medicines, feeding etc. If the illness becomes serious and/or additional resources or logistics are required, the help of the father is usually required. In these situations it is often said that "the father makes the (official) decision about where to take the child." However, according to men interviewees

in most cases these “decisions” are based the advice of their mothers, and sometimes their wives.

Household management of diarrhea: Interviewees identified two types of causes of diarrhea, those of spiritual origin and those of physical origin. According to GMs and young women it is more often caused by spiritual causes. Also related to perceptions of cause, it is believed that in some cases diarrhea is due to factors directly affecting the child while in other cases it is due to factors affecting the woman, and indirectly the child through her breast milk. In virtually all cases, home treatment is the first recourse when a child has diarrhea and the focus of the treatment is primarily on stopping the diarrhea and eliminating the gas. Much less importance is given to strengthening the child’s body through administration of food and fluids.

Fluids given during diarrhea: While many interviewees state that Rehydron (ORS) should be given to a child with diarrhea, almost all interviewees stated that “It is difficult to get children to swallow it because of the bad taste.” The primary reason for giving Rehydron is not to rehydrate the child but rather “to clean the stomach” or “to decrease inflammation of the intestine.” The predominant idea regarding the quantity of fluids that should be given to the sick child is that “giving the child too many fluids will increase the diarrhea.” A minority of interviewees, GMs and younger women, state that the child should be given “lots of fluids.” Home fluids given during episodes of diarrhea are: boiled water, fruit juices and fruit compote. All interviewees said that they have easy access to these fluids,

Feeding the child with diarrhea: The predominant view expressed by both age groups of women is that when a child has diarrhea “the stomach needs to rest” and, therefore, limited amounts of both foods and fluids should be given.

Diarrhea with vomiting: There is a widespread belief amongst all categories of interviewees that when vomiting accompanies diarrhea that the cause is of spiritual origin, due to the evil eye or other spirits. In these cases traditional remedies are initially used at home, including massaging the stomach with oil, reciting Koranic verses and giving the child rice with yoghurt and if necessary, the child is taken to the traditional healer (Mula or Ful Bean) as it is believed that this illness cannot be cured by modern medicine. It is believed that in most cases the illness is aggravated by “something caught in the child’s throat” and once the healer removes the object from the throat the child will recover shortly thereafter.

V. Recommendations:

Building on existing family MCH strategies: MCH programs should build on existing family strategies for promoting MCH. They should aim to strengthen the role of family actors who are most involved in MCH matters, namely GMs and WRA. By valuing the role of GMs in MCH such programs will also be building on

one of the core values in Uzbek society, "respect for the experience and wisdom of the elders." Involving GMs in MCH strategies will also increase support for such programs on the part of men, given their strong sense of admiration and respect for the senior women in the family.

Scope of MCH programs: Given the central role and strong influence of GMs in all health promotion and illness management at the household level, MCH programs should directly involve these senior women in MCH promotion strategies. Programs which focus only on younger women (women of reproductive age/WRA) are likely to less effective insofar as the younger women do not make independent decisions about MCH-related practices regarding themselves and their children. In addition, focusing only on WRA can contribute to creating a gap between the knowledge/practices of the younger women and the senior "health advisors" in the family. In the family context, if GMs support "new" practices, such as exclusive breastfeeding, it will be much easier for younger women to put these ideas into practice.

Integrated approach to MCH: MCH programs should aim to promote integrated MCH approaches including both traditional and modern practices. Many existing household MCH practices, related both to health promotion and to illness management, are beneficial while other practices are not. Often MCH programs focus only on promoting "modern" health practices while ignoring traditional household strategies that are beneficial. The community members interviewed were very supportive of strategies that value and build on their existing MCH strategies while at the same time suggest changes/improvements where necessary.

Strengthening GMs knowledge of pregnant and breastfeeding women's nutritional needs: Given that GMs are the principal advisors to women when they are pregnant and breastfeeding, it is important that efforts to promote new practices be directed at these senior women. They give a lot of beneficial advice to pregnant women related to their work, rest and the importance of pre-natal consultations. Special efforts should be made, however, to strengthen their knowledge of women's nutritional needs both during pregnancy and breastfeeding, including the causes and treatment of anemia.

Grandmothers' role in promoting household nutrition: Given the GMs central role in household food production and preparation, program strategies should aim to increase their knowledge of the nutritional needs of both women and children. Programs should also encourage GMs and other family members to increase household production of micronutrient rich foods in their gardens and through small animal raising. The GMs' strong commitment to promoting breastfeeding should be further strengthened by increasing their knowledge of the importance of exclusive breastfeeding for six months.

Strengthening household strategies for caring for sick children: Efforts to improve household management of sick children should systematically involve the GMs insofar as they play a key role in diagnosing all illnesses and in caring for all sick children. Although formal health facilities are quite accessible and frequently used when a child is sick, when a child is ill, it is the GM who is more involved in ensuring the day-to-day supervision and care of the sick child.

Changing MCH norms as a precursor to behavior change: In rural Navoi, most women and children live in an extended family context where women's practices are strongly influenced by the socio-culturally accepted norms regarding "appropriate" and "inappropriate" practices related to pregnancy, breastfeeding, caring for sick children etc. Such norms are communicated to younger primarily women by older women in their own families and communities. Programs should explicitly aim to promote changes in the norms related to different aspects of MCH by working through GM networks and leadership. Changes in such norms will undoubtedly have a significant impact on the behavior, or practices, of individual women in the community.

Building on existing community structures: In Uzbek communities, GM networks constitute indigenous communication and support mechanisms that contribute to family and community well-being. GM leaders, both formal (*Kaivonas*) and informal, and GM networks are already actively involved in MCH promotion. In addition, all GMs expressed interest in learning new things about MCH. MCH programs should identify and work through these community structures in order to further strengthen the knowledge and capacity of these senior women to optimally play their advisory and supervisory roles.

It is also recommended that Project Hope staff explore possibilities to develop such GM-focused activities in collaboration with the community women's organization in each *mahalla (municipality)* that is supported by the office of women's affairs there.

Given the high literacy rates in Uzbekistan, including amongst GMs, there are numerous possibilities of developing training activities on MCH topics with GM leaders and/or simple health promotion materials that could be used with GM groups.

Portrayal of GMs in education materials and activities: Frequently MCH programs refer to the negative influence of GMs on MCH, often referring to their "harmful traditional practices." In order to encourage, rather than discourage, GMs' to participate in MCH promotion activities it is important that educational materials and activities acknowledge the positive role played by GMs and emphasize their commitment to promoting the well-being of all family members.

Teaching methods for use with grandmothers: Given the status and experience of GMs in Uzbek communities, teaching methods used with them

should be based on adult education principles of respect and dialogue, rather than on traditional “school teaching” in which people are told what to do. In other cultures, groups of GMs have been very receptive to the use of stories to elicit discussion of MCH-related topics. In Uzbekistan, stories are one of the traditional forms of communication and teaching and it is suggested that this technique be tried with GM groups in MCH-promotion activities. Project HOPE staff and their MOH partners could develop a set of stories addressing priority project topics and GM leaders could be taught how to use these stories to stimulate discussion in GM networks.

Appendix A:

Study topics and specific objectives
Community Study: The Role of GMs and other household actors in MCH

Phase I: Roles and influence on MCH practices in the family and community

Topic no. 1: The persons who advise WRA and who make decisions related to MCH practices at the family and community level

Study objectives:

1. The role of head of households: to understand their role in the family and specifically the role they play regarding MCH

2. The role of husbands to understand their role in the family and specifically the role they play and the advice they give regarding MCH

3. The role of grandmothers: to understand their role in the society and specifically the role they play in the family and community to promote health and to care for sick children

4. The role of young women (women of reproductive age/WRA): to understand their role in the family and specifically their role in decision-making related to MCH during pregnancy, with newborns and with young children

5. The influence of community leaders: to know the opinions and influence of community leaders on the practices of MCH practices in the family

6. The role of traditional healers: to understand their role in health promotion and illness management

7. The influence of health workers: to understand the degree of influence they have on the MCH-related practices of women and children

Topic no. 2: The role and influence of GMs in the family and community

Study objectives:

1. to understand other family members' expectations of GMs and their feelings toward the role and experience of the GMs

2. to understand the role of the mothers and mothers-in-law advising younger women and caring for them and their young children

3. to understand the degree of influence which GMs have on the practices of younger women related to MCH

4. to assess the degree of contact that exists between GMs and health workers and with modern health advice on MCH topics

5. to assess the degree of contact that exists between GMs and traditional healers and the influence of the healers' advice on their MCH-related practices

6. to assess the amount of communication that exists between GMs, husbands and head of households concerning MCH

7. to assess the amount of contact and communication that exists between GMs in the same village

8. to assess the degree of involvement of GMs in community health and development activities

9. to assess the GMs' interest in learning more about "modern ideas" related to MCH

Phase II: Community norms, advice and practices related to MCH

Topic no. 3: Knowledge, advice and practices related to **breastfeeding**

Study objectives:

- To identify beliefs regarding advantages and disadvantages of breastfeeding and bottle feeding
- To assess the knowledge of and support for EBF on the part of GMs, husbands and WRA
- To identify the constraints to EBF on the part of GMs, husbands and WRA
- To identify fluids/food given before six months and the rationale for doing so
- To understand GMs' advice regarding introduction of complementary foods (timing and type of foods)
- To assess community knowledge of Koranic teaching regarding breastfeeding
- To assess factors which encourage and discourage women from breastfeeding for at least 2 years

Topic no. 4: Knowledge, advice and practices related to the **care of the sick child**

Study objectives:

- To understand the roles played by family members when a child is sick, within the family and outside the family (GM, mother, husband and GF) in: diagnosing; treating; referring sick child to specialists; caring for at night etc.
- To identify family and traditional practices intended to prevent children from getting sick (during the first days of life and thereafter)
- To understand the situations in which the advice of "specialists" is sought (modern health care/doctors or traditional health care/*mulas, ful bean*)
- to assess the contact that exists between GMs, GFs and health workers when children are sick (at home & at health facilities)
- to understand beliefs regarding the cause of childhood illnesses
- to understand GMs' belief regarding the role of the *keleen/*mother in causing childhood illnesses
- to understand GMs' advice regarding the use of home fluids and rehydron during diarrhea
- to identify home fluids used during diarrhea
- to understand GMs' advice regarding breastfeeding during diarrhea and other childhood illnesses
- to understand GMs' advice regarding types and quantities of food to give to a child with diarrhea
- to understand GMs' advice regarding feeding of young children after they have recovered from their illness
- to assess GMs' knowledge of the locally-available, nutritious foods (micro-nutrient rich foods) for young children

Topic no. 5: Knowledge, advice and practices related to **women's nutrition and household care during pregnancy**

Study objectives:

- to know the advice given by GMs to pregnant women regarding the type and quantity of food they should eat
- to assess GMs' knowledge of the locally-available, nutritious foods (micro-nutrient/vitamin-rich foods) for young women
- to know the advice given by GMs to pregnant women regarding their workload and rest during pregnancy
- to identify differences in the advice about diet during pregnancy given by health workers and by GMs
- to identify traditional practices used to protect the woman and fetus during pregnancy

- to identify constraints the families encounter providing pregnant and breastfeeding women with recommended foods
- to understand GMs' perception of anemia in terms of its cause, effect and prevention
- to understand gender and age priorities related to food allocation within the household
- to understand attitudes toward respective nutritional needs of women, men, pregnant women, breastfeeding women, boys and girls
- to understand men's role in providing nutritious and adequate food for pregnant and breastfeeding women

Phase III

Topic no. 7: Knowledge, advice and practices related to the **nutrition of the young child**

Study objectives:

- to asses the nutritional knowledge of GMs, men and young women regarding young children's nutritional needs after six months
- to assess GMs' knowledge of foods that are rich in vitamins (micronutrients) that are good for young children